Panels	lide #		Category	Total Number of Entries	Categories: 1. Efficacy Testing	2. Trained Workforce	3. IAQ/ Public Health	4. Standards & Guidelines	5. Regulatory Guidance	6. Proven Safety	7. Proven Performmance	8. Education Outreach	9. Labeling Prod Info	10. New Tech. Research	11. Cost	12. Far UV	13. Installation Commissioning	14. Collaboration
WH-OSTP	2	I-1	Develop standard efficacy testing methods for air treatment technologies that promote appropriate labeling and informed use and enable high-quality, standardized, innovative products to come to market in a trusted manner.		✓								✓					
WH-OSTP	2	I-2	Conduct multidisciplinary epidemiological and implementation research on built environment technologies for reducing disease spread like GUV.				✓							✓				
WH-OSTP	2	I-3	Establish indoor air quality and built environment interventions like GUV as routine and significant parts of public health and epidemiological strategy				✓				✓							
WH-OSTP	3	G-1	Expand and train workforce for installation and maintenance of GUV installations			✓												
WH-OSTP	3	G-2	Develop more affordable form factors and fixtures for GUV including LED lights											✓	✓			
WH-OSTP	3	G-3	Support innovation in building and infrastructure design, indoor air quality monitors, pathogen sensors, advanced materials, and air disinfection technologies to foster healthy, safe and secure working, learning, and living environments for all				✓							✓				
WH-OSTP			Total Entries = 6		1	1	3	0	0	0	1	0	1	3	1	0	0	0
PNNL	5	I-1	Field evaluations/demonstrations to show technology is safe and effective							✓	✓	✓						
PNNL	5	I-2	Guidelines + educated workforce to design, install, operate, maintain GUV systems in buildings			✓		✓										
PNNL	5	I-3	Validate and/or document safety of far-UV direct irradiation before deployment							✓						✓		
PNNL	6	G-1	Ensure safety of technology in occupiable spaces				✓			✓								
PNNL	6	G-2	Educated workforce to design, install, operate, and maintain			✓											✓	
PNNL	6	G-3	Clear guidelines/standards of most effective and efficient combinations of risk mitigation strategies (GUV, ventilation, room air cleaners, etc.) for IAQ and reduced disease transmission				✓	✓										
PNNL			Total Entries = 6		0	2	2	2	0	3	1	1	0	0	0	1	1	0
FDA	8	I-1	Alignment on what are considered medical claims				✓											
FDA	8	I-2	Addressing ongoing pandemic concerns				✓											
FDA	9	G-1	Continue to collaborate with the agency to bring safe and effective products to the market		✓					✓	✓							✓
FDA			Total Entries = 3		1	0	2	0	0	1	1	0	0	0	0	0	0	1
CDC/NIOSH	11	I-1	Continuing to understand the role UV technologies can play throughout local, state, and federal government agencies									✓						✓
CDC/NIOSH	11	I-2	Decoupling UV air treatment from UV surface disinfection					✓				✓						
CDC/NIOSH	11	I-3	Improving guidance for design, installation, commissioning, operation and periodic performance validation		✓			✓									✓	
CDC/NIOSH	11	I-4	Documenting successful in-duct UV air treatment case studies				✓				✓							
CDC/NIOSH	12	G-1	Increase knowledge about the benefits/limitations of far UV									✓				✓		
CDC/NIOSH	12	G-2	Enhance design, installation and operation guidance			✓		✓									✓	
CDC/NIOSH	12	G-2.1	Focus on end-users and decision makers									✓						
CDC/NIOSH	12	G-2.2	Cover all accepted/proven UV technologies					✓	✓			✓						✓
CDC/NIOSH	12	G-2.3	Establish proven, user-friendly performance verification protocols		✓			✓	✓								✓	
CDC/NIOSH	12	G-2.4	Provide credentialing for system designers/installers			✓											✓	
CDC/NIOSH	12	G-3	Take steps toward standard testing and regulation		✓			✓	✓									
CDC/NIOSH			Total Entries = 11		3	2	1	6	3	0	1	5	0	0	0	1	4	2
NIST	14	I-1	Consensus-based standards and test methods		✓			✓										

Panels	lide #		Category	Total Number of Entries	1. Efficacy Testing	2. Trained Workforce	3. IAQ/ Public Health	4. Standards & Guidelines	5. Regulatory Guidance	6. Proven Safety	7. Proven Performmance	8. Education Outreach	9. Labeling Prod Info	10. New Tech. Research	11. Cost	12. Far UV	13. Installation Commissioning	14. Collaboration
					Categories													
NIST	14	I-2	Consistent approaches to conformity assessment		✓			✓	✓				✓					
NIST	14	I-3	Stakeholder awareness									✓						
NIST	15	G-1	Sound, widely-accepted standards and test methods for determining efficacy and safety		✓			✓		✓	✓							
NIST	15	G-2	Coordination among public and private sector stakeholders									✓						✓
NIST	15	G-3	Framework for how to leverage progress when addressing the next challenge				✓	✓	✓			✓						✓
NIST		Total Entries =	6		3	0	1	4	2	1	1	3	1	0	0	0	0	2
OSHA	17	I-1	Universal performance metric –under which conditions will GUV produce IAQ making fewer people sick		✓		✓	✓			✓							
OSHA	17	I-2	Universal safety metric –UV dosing under which conditions is safe for workers				✓	✓		✓								
OSHA	##	I-3	Development of measurement techniques for the 2 issues above		✓		✓	✓	✓									
OSHA	18	G-1	OSHA is actively partnering with academic and governmental groups to support the development of performance and measuring standards		✓		✓	✓			✓							✓
OSHA		Total Entries =	4		3	0	4	4	1	1	2	0	0	0	0	0	0	1
EPA	27	I-1	EPA faces many challenges in regulating devices because the current regulatory framework does not allow for pre-market review of product safety or efficacy claims and does not address the complexity of devices available on the market today.		✓				✓			✓						
EPA	27	I-2	Resource constraints limit the ability to undertake regulatory changes at this time.						✓						✓			
EPA	27	I-3	Device products with claims to control SARS-CoV-2 have continued to expand during the pandemic.		✓									✓				
EPA	28	I-4	Public health consequences for insufficiently regulated devices.				✓			✓	✓							
EPA	28	1-4.1	Users may not use prudent disinfection processes if they believe they are protected by these technologies.				✓			✓		✓						
EPA	28	1-4.2	Users may believe they do not have to follow public health guidance, such as handwashing, wearing masks, social distancing, etc.				✓			✓		✓	✓					
EPA	28	1.5	Some devices may cause harm:							✓		✓	✓					
EPA	28	1.5.1	Some UV lights can causeburns of skin/eyes, skin cancer.							✓		✓	✓					
EPA	28	1.5.2	Some UV light devices generate ozone which can exacerbate asthma and chronic obstructive pulmonary disease.							✓		✓	✓					
EPA		Total Entries =	9		2	0	3	0	2	6	1	6	4	1	1	0	0	0
Federal Panelists		# (Total = 45)	45	45	13	5	16	16	8	12	8	15	6	4	2	2	5	6
		%		100%	*28.9%*	*11.1%*	*35.6%*	*35.6%*	*17.8%*	*26.7%*	*17.8%*	*33.3%*	*13.3%*	*8.9%*	*4.4%*	*4.4%*	*11.1%*	*13.3%*
P-1: Donsky	31	I.1	Candida auris		✓		✓				✓							
P-1: Donsky	31	I.1.1	Environment is important				✓	✓				✓						
P-1: Donsky	31	I.1.2	Manual cleaning suboptimal				✓	✓				✓						
P-1: Donsky	31	I.1.3	UV-C effective		✓		✓				✓							
P-1: Donsky	31	I.2	Why is UV not being used?				✓	✓	✓			✓						
P-1: Donsky	31	I.2.1	Cost				✓					✓			✓			
P-1: Donsky	31	I.2.2	Ease of use				✓					✓			✓			
P-1: Donsky	31	I.2.3	Evidence		✓						✓	✓						
P-1: Donsky	31	I.2.4	CDC recommendations and practice guidelines				✓	✓	✓			✓						

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					Categories													
P-1: Donsky	32	G.1	Do-it-yourself test protocol		✓			✓	✓			✓						✓
P-1: Donsky	32	G.1.1	Commercial biological indicator spores		✓		✓	✓			✓	✓						✓
P-1: Donsky	32	G.1.2	Simple, standard exposure protocol		✓		✓			✓		✓						
P-1: Donsky	32	G.1.3	Process in-house or send to commercial lab for testing		✓		✓	✓	✓		✓							✓
P-1: Donsky	32	G.2	Compare Devices		✓		✓	✓	✓		✓							✓
P-1: Donsky	3	G.3	Cost		✓						✓				✓			
P-1: Donsky	32	G.4	Evidence		✓						✓							
P-1: Donsky		Total Entries =	16		10	0	12	8	5	1	8	10	0	0	3	0	0	4
P-1: Mathew	34	I.1	Infection prevention principles are the building blocks for safer healthcare delivery				✓	✓	✓			✓						✓
P-1: Mathew	34	I.2	Challenges in resilient healthcare staffing and systems			✓	✓										✓	
P-1: Mathew	34	I.3	Turnover of staff/ EVS: requires frequent training and monitoring/ assessment of any drift in cleaning techniques			✓	✓										✓	✓
P-1: Mathew	34	I.4	Rise in antimicrobial resistance (AMR)/ novel pathogens		✓		✓	✓			✓			✓				✓
P-1: Mathew	34	I.5	Impact of climate change and spread of soil microbes with AMR (floods leading to soil erosions- with exposures and impacting plants/animals and humans)				✓							✓				✓
P-1: Mathew	35	G.1	Devices and tools that are automated (less prone to human errors/ drifts in human techniques)		✓		✓							✓				✓
P-1: Mathew	35	G.2	Need to tap into AI- gather data and provide real time feedback		✓		✓				✓			✓				✓
P-1: Mathew	35	G.3	UV Devices that are safe in healthcare settings (both in acute care and in Long Term Acute Care and Skilled Nursing facilities				✓			✓		✓						✓
P-1: Mathew	35	G.4	Devices for other industries : travel and hospitality (global utilization to decrease spread of AMR through land transport/planes/ships)				✓	✓		✓	✓	✓	✓					✓
P-1: Mathew	35	G.5	Devices for Community centers/places of worship/recreation/museums/music/opera (singing = airborne spread)				✓	✓		✓	✓	✓	✓					✓
P-1: Mathew	35	G.6	Cost effective and access by communities currently faced with health inequities and limited access to healthcare		✓		✓	✓				✓			✓			✓
P-1: Mathew		Total Entries =	11		4	2	11	5	1	3	4	5	2	4	1	0	2	9
P-1: Blatchley	37	I.1	Lack of standards for design, validation/testing		✓		✓	✓	✓			✓	✓					✓
P-1: Blatchley	37	I.1.1	Quantitative link between system characteristics and performance (risk-based approach)		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓			✓
P-1: Blatchley	37	I.2	Optimization of UVC exposure		✓		✓	✓	✓	✓	✓	✓	✓	✓				✓
P-1: Blatchley	37	I.2.1	Disinfection vs. human exposure		✓		✓	✓	✓	✓	✓	✓	✓	✓				✓
P-1: Blatchley	37	I.3	Need for new, efficient UVC sources		✓		✓	✓	✓			✓		✓		✓		✓
P-1: Blatchley	37	I.3.1	Higher output power, wavelength selection		✓					✓	✓			✓		✓		✓
P-1: Blatchley	38	G.1	Develop standards for design, testing/validation		✓		✓	✓	✓	✓	✓		✓					✓
P-1: Blatchley	38	G.2	Develop new, efficient UV sources		✓		✓							✓	✓			
P-1: Blatchley	38	G.3	Develop UV-based applications across scales		✓		✓	✓	✓	✓	✓			✓				✓
P-1: Blatchley		Total Entries =	9		9	0	8	7	7	6	6	5	5	7	2	2	0	8
P-1: McPhaul	40	I.1	Communication to the public about its effectiveness: Does it work?				✓	✓	✓	✓	✓	✓	✓					✓

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					Categories													
P-1: McPhaul	40	I.2	Communication about its safety: Is it safe? Even for children, older adults, the medically fragile and those who are immune compromised?				✓	✓	✓	✓								✓
P-1: McPhaul	40	I.3	Who should I believe when considering GUV?				✓	✓	✓	✓		✓	✓					✓
P-1: McPhaul	41	G.1	Scale up two-way processes for communicating with the public and medical community including their participation in evaluating GUV to achieve heathy indoor air and spaces		✓		✓	✓	✓	✓		✓	✓					✓
P-1: McPhaul	41	G.2	Equity and Inclusion: Will everyone have access to GUV?				✓					✓			✓			✓
P-1: McPhaul	41	G.3	Environmental Sustainability – Can GUV help reduce carbon emissions and other negative impacts on the environment?		✓		✓	✓	✓	✓	✓			✓				✓
P-1: McPhaul		Total Entries =	6		2	0	6	5	5	5	2	4	3	1	1	0	0	6
Panel 1 - R&D		# (Total = 42)	42	42	25	2	37	25	18	15	20	24	10	12	7	2	2	27
		%		100%	59.5%	4.8%	88.1%	59.5%	42.9%	35.7%	47.6%	57.1%	23.8%	28.6%	16.7%	4.8%	4.8%	64.3%
P-2: Stines	46	I.1	Proper application of UVC for HVAC must be based on use case		✓		✓	✓	✓	✓	✓		✓	✓				✓
P-2: Stines	46	I.1.1	Surface treatment of cooling coils and pass-by air disinfection have are not the same.		✓		✓	✓	✓	✓	✓		✓	✓				✓
P-2: Stines	46	I.2	In-Room Upper Air UVGI		✓		✓	✓	✓	✓	✓	✓	✓			✓		✓
P-2: Stines	46	I.2.1	Proper selection and sizing by manufacturers/reps		✓	✓	✓	✓				✓	✓		✓		✓	✓
P-2: Stines	46	I.2.2	Safe installation of equipment by contractors (including post-install commissioning)		✓	✓	✓	✓		✓		✓	✓		✓		✓	✓
P-2: Stines	46	I.3	"UV-in-a-box"				✓	✓	✓	✓	✓	✓	✓		✓			✓
P-2: Stines	46	I.3.1	Public understanding of both benefits and limitations				✓	✓	✓	✓	✓	✓	✓					✓
P-2: Stines	47	G.1	Integrating UVC-LED technology into HVAC and Upper Air as appropriate and as needed			✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓
P-2: Stines	47	G.2	Understanding and properly applying 222nm technology as it continues to evolve for in-room air and surface applications			✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓
P-2: Stines	47	G.3	Working together (manufacturers and regulatory bodies) to establish fair and effective standards for HVAC and Upper Air GUVI equipment and applications to ensure products actually do what they say and that all entries into these markets are held to the same standards.		✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓
P-2: Stines		Total Entries =	10		6	5	10	10	8	9	8	8	10	2	6	3	5	10
P-2: Claus	49	I.1	Convincing (potential) customers why GUV is the right solution:			✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓
P-2: Claus	49	I.1.1	FOR INFECTION CONTROL			✓	✓	✓	✓	✓	✓	✓	✓				✓	✓
P-2: Claus	49	I.1.2	TO MAKE SPACES HEALTHER			✓	✓	✓	✓	✓	✓	✓	✓				✓	✓
P-2: Claus	49	I.1.3	TO PROTECT SOCIETY			✓	✓	✓	✓	✓	✓	✓	✓				✓	✓
P-2: Claus	49	I.1.4	TO ACHIEVE ECONOMIC BENEFIT			✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓
P-2: Claus	49	I.2	Getting (more) scientific (solid!) evidence that GUV…		✓		✓	✓		✓	✓	✓						✓
P-2: Claus	49	I.2.1	…Can lower infection risk		✓		✓	✓			✓	✓						✓
P-2: Claus	49	I.2.2	…Can be safely applied		✓		✓	✓		✓		✓						✓
P-2: Claus	49	I.2.3	…Works for many concerning pathogens		✓		✓	✓		✓	✓	✓					✓	✓
P-2: Claus	49	I.3	Better, collaborative, focused, trusting relationship with Regulatory stakeholders				✓	✓	✓			✓	✓					✓
P-2: Claus	50	G.1	Active support and recognition by government (agencies) that GUV provides infection prevention…		✓		✓	✓	✓	✓	✓	✓	✓					✓

Panels	lide #	Category		Total Number of Entries	1. Efficacy Testing	2. Trained Workforce	3. IAQ/ Public Health	4. Standards & Guidelines	5. Regulatory Guidance	6. Proven Safety	7. Proven Performmance	8. Education Outreach	9. Labeling Prod Info	10. New Tech. Research	11. Cost	12. Far UV	13. Installation Commissioning	14. Collaboration
					Categories													
P-2: Claus	50	G.1.1	...Is a viable technology		✓		✓	✓	✓	✓	✓	✓	✓					✓
P-2: Claus	50	G.1.2	...Is safe		✓		✓	✓	✓	✓	✓	✓	✓					✓
P-2: Claus	50	G.1.3	...Is "Green" = energy efficient		✓		✓	✓	✓	✓	✓	✓	✓					✓
P-2: Claus	50	G.1.4	...Should be implemented		✓		✓	✓	✓	✓	✓	✓	✓					✓
P-2: Claus	50	G.1.5	...Needs Education of the public		✓		✓	✓	✓	✓	✓	✓	✓					✓
P-2: Claus	50	G.2	Having Research results and (national and international) standards to substantiate above		✓		✓	✓	✓	✓	✓	✓	✓	✓				✓
P-2: Claus	50	G.3	Getting government funding for R&D				✓					✓		✓	✓			✓
P-2: Claus	50	G.4	Light sources:		✓		✓	✓	✓	✓	✓	✓	✓	✓				✓
P-2: Claus	50	G.4.1	...Getting higher efficiency and more reliable and cheaper (mW/$) UV-C LED		✓		✓			✓	✓	✓	✓	✓	✓			✓
P-2: Claus	50	G.4.2	...Getting shorter wavelengths		✓		✓			✓	✓	✓		✓	✓	✓		✓
P-2: Claus	50	G.4.3	...Ground breaking, new technologies???		✓		✓	✓		✓	✓	✓		✓	✓	✓		✓
P-2: Claus	50	G.5	GUV becoming commodity		✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓
P-2: Claus		Total Entries =	23		16	6	23	20	15	20	20	23	16	6	7	2	7	23
P-2: Piper	52	I.1	Increase Awareness of GUVI Advantages and Opportunity to Improve Indoor Air Quality with... (Visible/Audible Support by Government)		✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓
P-2: Piper	52	I.2	Visible/Audible Support by Government		✓		✓	✓	✓	✓	✓	✓	✓				✓	✓
P-2: Piper	53	G.1	Near Term – Immediately Raise Awareness, Encourage and Actually Protect Public Facilities				✓	✓	✓	✓	✓	✓	✓					✓
P-2: Piper	53	G.2	Medium Term – Enact Healthy Building Standards and Obtain Additional Funding		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓			✓
P-2: Piper	53	G.3	Long Term – Reduce or Eliminate the Transmission of Infectious Disease		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓			✓
P-2: Piper		Total Entries =	5		4	1	5	5	5	5	5	5	5	2	3	0	2	5
P-2: Anand	55	I.1	Not making the cut into the top or essential purchasing list		✓		✓	✓	✓	✓	✓	✓	✓		✓			✓
P-2: Anand	55	I.2	Lack of recognition from regulators for organizations that implement GUV solutions		✓		✓	✓	✓	✓	✓	✓	✓					✓
P-2: Anand	55	I.3	Unclear guidance from regulations for the adoption of GUV solutions		✓			✓	✓	✓	✓	✓	✓					✓
P-2: Anand	56	G.1	Make GUVI a standard of care in healthcare within the regulatory space		✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓
P-2: Anand	56	G.2	Shift from supplementary sanitization to critical infection prevention tool		✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓
P-2: Anand	56	G.3	Funding to healthcare institutions to adopt GUVI solutions		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓
P-2: Anand		Total Entries =	6		6	3	5	6	6	6	6	6	6	1	4	0	3	6
P-2: Mathur	58	I.1	Limited customer knowledge and understanding about UV value proposition				✓	✓	✓	✓	✓	✓	✓					✓
P-2: Mathur	58	I.2	Lack of industry test and performance standards for whole room UV disinfection		✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓
P-2: Mathur	58	I.3	Wild wild west scenario resulting in confusion and skepticism arising from a variety of companies offering UV products with unsubstantiated claims, and potentially unsafe devices		✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓
P-2: Mathur	58	I.4	Limited guidance from healthcare professional organizations regarding the application of UV in healthcare settings		✓		✓	✓	✓	✓	✓	✓	✓		✓		✓	✓
P-2: Mathur	59	G.1	Guidance from government and healthcare agencies supporting GUV for infection prevention		✓		✓	✓	✓	✓	✓	✓	✓		✓			✓
P-2: Mathur	59	G.2	Having (national and international) standards to drive device selection and adoption		✓		✓	✓	✓	✓	✓	✓	✓		✓			✓
P-2: Mathur	59	G.3	Paradigm shift from an optional disinfection technology to a standard infection prevention tool in a layered approach		✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓

Panels	lide #		Category	Total Number of Entries	1. Efficacy Testing	2. Trained Workforce	3. IAQ/ Public Health	4. Standards & Guidelines	5. Regulatory Guidance	6. Proven Safety	7. Proven Performmance	8. Education Outreach	9. Labeling Prod Info	10. New Tech. Research	11. Cost	12. Far UV	13. Installation Commissioning	14. Collaboration
					Categories													
P-2: Mathur	59 G.4	???																
P-2: Mathur	Total Entries =	8			6	3	7	7	7	7	7	7	7	0	5	0	4	7
Panel 2 - OEM's	# (Total = 52)	52		52	38	18	50	48	41	47	46	49	44	11	25	5	21	51
	%			100%	73.1%	34.6%	96.2%	92.3%	78.8%	90.4%	88.5%	94.2%	84.6%	21.2%	48.1%	9.6%	40.4%	98.1%
P-3: ASHRAE	61 I.1	Status of application-relevant standards/certifications for equipment effectiveness and safety			✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓
P-3: ASHRAE	61 I.2	Hard to know who is a qualified provider			✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓
P-3: ASHRAE	61 I.3	Methods and tools for application			✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓
P-3: ASHRAE	62 G.1	Certified products with verifiable performance in application			✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓
P-3: ASHRAE	62 G.2	Well-trained, credentialed workforce			✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓
P-3: ASHRAE	62 G.3	IAQ standards that address infection risk			✓		✓	✓	✓	✓	✓		✓					✓
P-3: ASHRAE	Total Entries =	6			6	5	6	6	6	6	6	5	6	0	4	0	5	6
P-3: IEC	64 I.1	To prepare and maintain deliverables (standards and similar) specific to UV radiation for germicidal products within TC 34 scope			✓		✓	✓	✓				✓					✓
P-3: IEC	64 I.2	To monitor the activities of the IEC and ISO committees related to UV radiation for germicidal products					✓	✓	✓				✓					✓
P-3: IEC	64 I.3	Currently working on IEC standards for Fixed and portable lighting products, cabinet type germicidal products, and UV sources (e.g. Lamp or LEDs					✓	✓	✓				✓					✓
P-3: IEC	64 G.1	There is no defined 10-year goal as this is a standards development organization that develops and maintain IEC standards that is needed by the industry. Standards are constantly under creation/revision.					✓	✓	✓				✓					✓
P-3: IEC	Total Entries =	4			1	0	4	4	4	0	0	0	4	0	0	0	0	4
P-3: ISO	67 I.1	Traditional UV-C lamps contain mercury					✓	✓	✓	✓		✓	✓					✓
P-3: ISO	67 I.2	The output power of the LED UV lamp is not enough					✓				✓			✓				✓
P-3: ISO	67 I.3	Far-ultraviolet rays have no damage to the human body, but the experimental data is not enough					✓			✓		✓	✓	✓		✓		✓
P-3: ISO	68 G.1	How to use new disruptive technologies such as artificial intelligence, cloud computing, robotics, additive manufacturing (3D printing) and the Internet of Things to change traditional UV-C systems?					✓	✓	✓					✓			✓	✓
P-3: ISO	68 G.2	How to improve the UV-C output power of UV LED?					✓							✓			✓	✓
P-3: ISO	68 G.3	How to solve the human-machine coexistence of far UV-C?				✓	✓						✓	✓	✓	✓	✓	✓
P-3: ISO	Total Entries =	6			0	1	6	2	2	2	1	2	3	5	1	2	3	6
P-3: NEMA	70 I.1	Market not developing, still niche				✓	✓	✓	✓			✓	✓	✓				✓
P-3: NEMA	70 I.2	Persistent safety concerns and perceptions about 'radiation'				✓	✓	✓	✓	✓		✓	✓	✓				✓
P-3: NEMA	70 I.3	Inconsistent regulatory approaches & enforcement				✓	✓	✓				✓	✓					✓
P-3: NEMA	70 I.4	Inconsistent standards & guidelines				✓	✓	✓				✓	✓					✓
P-3: NEMA	70 I.5	"Wild West" with claims in marketplace			✓		✓	✓	✓			✓	✓					✓
P-3: NEMA	70 I.6	Missed window of opportunity; "pandemic 'over' but standards not yet fully in place. Many customers have adopted nonchalant attitude re: necessity.					✓	✓	✓			✓	✓					✓
P-3: NEMA	70 I.7	No requirements in building codes, despite WHO pushing					✓	✓	✓	✓	✓	✓	✓					✓
P-3: NEMA	71 G.1	Full set of standards in place including standards for germicidal efficacy of products			✓	✓	✓	✓	✓	✓	✓	✓	✓					✓
P-3: NEMA	71 G.2	Requirements in building codes including IAQ			✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓

Panels	lide #		Category	Total Number of Entries	1. Efficacy Testing	2. Trained Workforce	3. IAQ/ Public Health	4. Standards & Guidelines	5. Regulatory Guidance	6. Proven Safety	7. Proven Performmance	8. Education Outreach	9. Labeling Prod Info	10. New Tech. Research	11. Cost	12. Far UV	13. Installation Commissioning	14. Collaboration
					Categories													
P-3: NEMA	71	G.3	Put safety concerns/perceptions to rest		✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓
P-3: NEMA	71	G.4	Consistent regulatory approach/framework		✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓
P-3: NEMA	71	G.5	Education and training for professionals			✓	✓	✓	✓			✓					✓	✓
P-3: NEMA		Total Entries =	12		5	9	12	12	10	6	5	12	11	2	0	0	4	12
P-3:IES	73	I.1	Address poor GUVI products by achieving industry agreement on minimum performance requirements		✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓
P-3:IES	73	I.2	Establish an industry certification to assure a minimum level of competence for GUVI installers.		✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓
P-3:IES	73	I.3	Unify and simplify GUVI by aligning influential relevant industry groups like IUVA, DOE, IES, ASHRAE, IALD & NALMCO on key GUVI issues			✓	✓	✓	✓	✓	✓	✓	✓				✓	✓
P-3:IES	74	G.1	Educate more installers and distributors			✓	✓	✓	✓	✓	✓	✓	✓				✓	✓
P-3:IES	74	G.2	Increase radiant efficiencies for UV-B and UV-C LEDs and retrofit products for existing lamp shapes (assuming LEDs provide advantages beyond being environmentally friendly)		✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓
P-3:IES	74	G.3	Achieve Federal DOE regulations (CCMS Database) for GUVI minimum requirements to remove ineffective and unsafe products from the marketplace.		✓		✓	✓	✓	✓	✓	✓	✓				✓	✓
P-3:IES		Total Entries =	6		4	5	6	6	6	6	6	6	6	0	0	0	6	6
P-3:IUVA	76	I.1	Consensus methods for the measurement of the effectiveness of GUVI for the disinfection of surfaces and air		✓		✓	✓	✓		✓	✓	✓				✓	✓
P-3:IUVA	76	I.2	Development of consensus methods for communicating the capabilities of GUVI which accurately reflect GUVI benefits and limitations		✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓
P-3:IUVA	76	I.3	Ensuring GUVI is increasingly recognized as a key element for comprehensive programs to create safer, more energy efficient built environments		✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓
P-3:IUVA	77	G.1	Improve GUVI technologies allowing improved power, efficiency and wavelength selection		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓			✓
P-3:IUVA	77	G.2	Integrate GUVI into built environment designs		✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓
P-3:IUVA	77	G.3	Develop a more complete understanding of the role for GUVI in disinfection and health of the public		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓
P-3:IUVA		Total Entries =	6		6	4	6	6	6	5	6	6	6	2	5	0	5	6
Panel 3 - Associations		# (Total = 40)	40	40	22	24	40	36	34	25	24	31	36	9	10	2	23	40
		%		100%	55.0%	60.0%	100.0%	90.0%	85.0%	62.5%	60.0%	77.5%	90.0%	22.5%	25.0%	5.0%	57.5%	100.0%
Total All Panels		# (Total = 179)	179	179	98	49	143	125	101	99	98	119	96	36	44	11	51	124
		%		100%	55.0%	27.0%	80.0%	70.0%	56.0%	55.0%	55.0%	66.0%	54.0%	20.0%	25.0%	6.0%	28.0%	69.0%

Grey Fill => No discernable consensus		Dk Green => Moderate Consensus	
Yellow Fill => Growing Consensus		Blue +> Strong Consensus	
Lt Green Fill => Mild consensus		Red => Overwhelming Consensus	