

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: METALUX

Report Number: P976330

Luminaire Tested: 22SR-LD2-25-C-UNV-L830-CD1-U

Issue Date: 03/18/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P976330  
Test Lab: INNOVATION CENTER(P3)  
Issue Date: 03/18/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 22SR-LD2-25-C-UNV-L830-CD1-U  
Description: METALUX SKYRIDGE 2x2 2500LM PACKAGE 80CRI 3000K CURVED REFLECTOR TROFFER  
Light Source: 3000K CCT, 80+ CRI LEDs  
Ballast/Driver: -

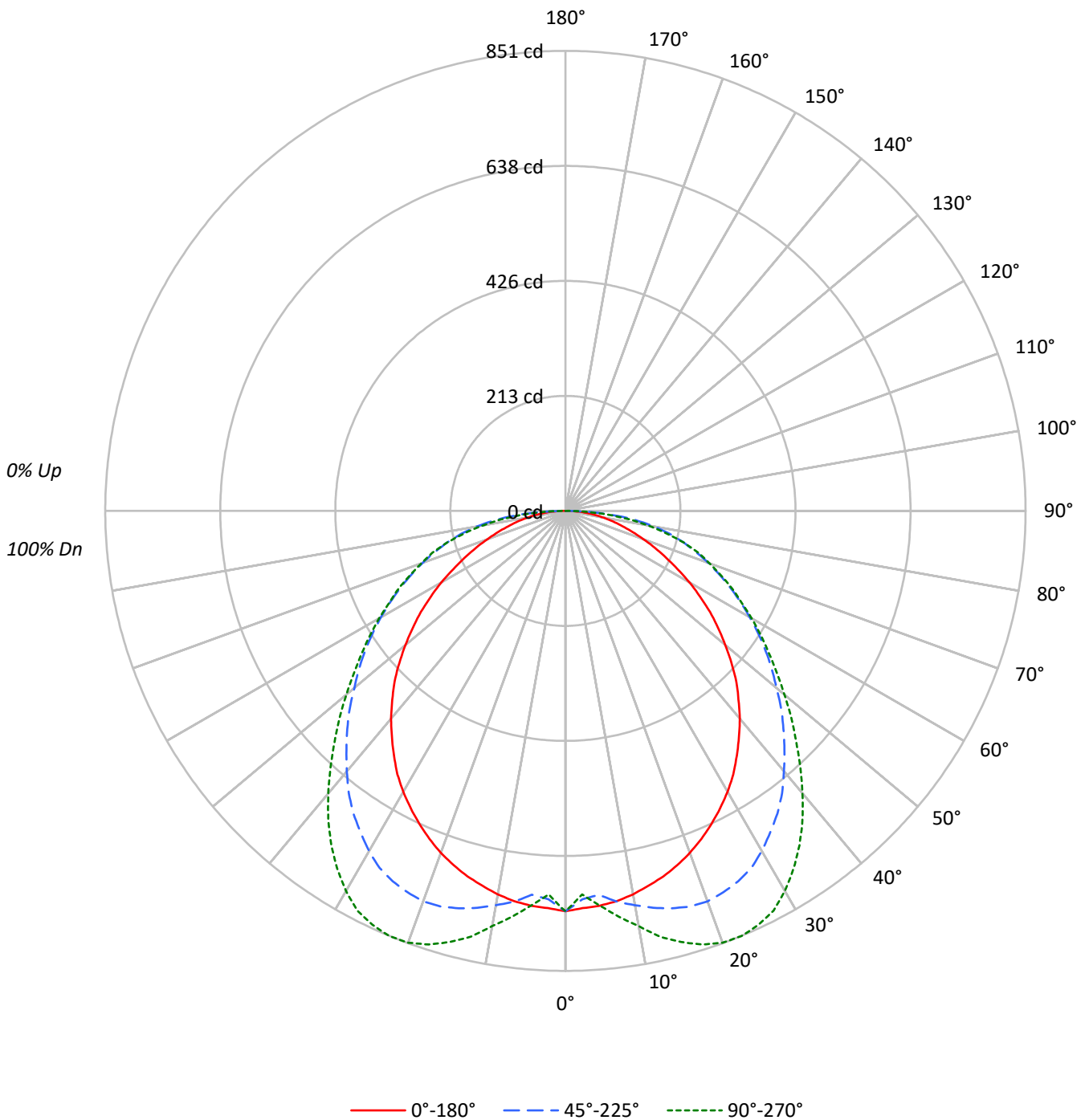
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2435.0 lumens  
Efficiency: N/A  
Efficacy: 136.0 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.51 / 1.48  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 17.9  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT

TEST NUMBER: P976330  
CATALOG NUMBER: 22SR-LD2-25-C-UNV-L830-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P976330  
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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20				
RC	80				70				50				30				10			0	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			
1	108	103	98	94	105	100	96	92	96	92	89	92	89	87	88	86	84	82			
2	98	89	82	75	95	87	80	75	83	78	73	80	75	71	77	73	69	67			
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56			
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48			
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41			
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36			
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32			
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28			
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	32	27	25			
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	24	23			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1993	1993	1993
5°	1980	1925	1980
10°	1968	2024	2131
15°	1950	2120	2300
20°	1928	2201	2434
25°	1897	2244	2508
30°	1863	2258	2522
35°	1815	2245	2479
40°	1763	2209	2396
45°	1702	2171	2297
50°	1617	2133	2213
55°	1532	2122	2157
60°	1429	2119	2140
65°	1310	2144	2167
70°	1209	2209	2229
75°	1135	2352	2352
80°	1102	2580	2400
85°	1096	2745	2353

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 40°  
 Vertical Angle: 85°  
 Luminance: 2862 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	69.6	2.9
10°-20°	213.8	8.8
20°-30°	341.6	14.0
30°-40°	413.1	17.0
40°-50°	419.1	17.2
50°-60°	377.4	15.5
60°-70°	305.6	12.5
70°-80°	213.3	8.8
80°-90°	81.5	3.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	625.0	25.7
0°-40°	1038.1	42.6
0°-60°	1834.6	75.3
0°-90°	2435.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2435.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	741	741	741	741	741	
5°	733	710	713	730	733	70
15°	700	699	761	810	826	197
25°	639	661	756	824	845	294
35°	553	580	683	741	755	346
45°	447	484	570	600	604	344
55°	326	385	452	460	460	291
65°	206	286	337	334	340	205
75°	109	191	226	224	226	117
85°	36	79	89	80	76	39
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	740.6	740.6	740.6	740.6	740.6	740.6	740.6	740.6	740.6	740.6	740.6
2.5°	735.5	736.8	735.5	734.3	733.0	731.7	730.5	728.0	724.1	721.5	719.0
5°	733.0	733.0	728.0	720.3	713.9	710.1	706.4	703.8	705.0	708.9	712.7
7.5°	728.0	725.4	713.9	703.8	698.7	698.7	701.3	710.1	719.0	725.4	729.2
10°	720.3	715.2	698.7	691.1	697.4	702.5	708.9	717.8	722.9	730.5	740.6
12.5°	710.1	702.5	683.4	686.0	698.7	705.0	708.9	716.4	729.2	741.9	752.1
15°	699.9	687.3	670.7	682.2	694.8	698.7	703.8	719.0	733.0	745.7	761.0
17.5°	687.3	670.7	659.3	673.2	684.8	692.3	701.3	716.4	733.0	750.8	767.3
20°	673.2	654.2	647.9	663.2	677.1	686.0	693.6	712.7	731.7	749.5	768.6
22.5°	656.7	633.9	633.9	647.9	665.7	673.2	683.4	705.0	724.1	744.5	763.5
25°	639.0	614.9	617.4	632.6	650.4	660.6	670.7	692.3	715.2	734.3	755.9
27.5°	620.0	594.5	599.6	614.9	631.4	644.1	655.5	678.3	699.9	722.9	744.5
30°	599.6	574.2	578.0	593.3	612.3	625.1	636.5	659.3	682.2	706.4	726.6
32.5°	578.0	552.6	556.4	571.7	591.9	603.5	614.9	637.7	663.2	686.0	705.0
35°	552.6	529.7	533.6	548.8	569.1	580.5	591.9	617.4	640.2	661.8	683.4
37.5°	527.2	505.6	508.1	524.6	546.2	557.7	569.1	593.3	616.1	637.7	658.1
40°	501.8	481.4	485.3	500.5	522.1	532.3	543.7	569.1	591.9	612.3	628.8
42.5°	473.9	457.3	461.2	476.3	496.7	508.1	520.8	543.7	565.3	584.3	599.6
45°	447.2	433.1	435.7	451.0	471.3	484.0	495.5	519.5	539.9	555.2	570.4
47.5°	416.6	405.2	411.5	426.8	447.2	458.6	471.3	494.2	512.0	528.5	541.1
50°	386.2	377.3	385.0	401.5	421.7	435.7	447.2	467.5	485.3	500.5	509.4
52.5°	355.7	351.8	359.5	376.0	397.6	409.1	420.5	442.1	459.8	472.6	481.4
55°	326.5	323.9	334.1	351.8	374.8	385.0	396.4	416.6	433.1	444.7	452.3
57.5°	294.7	296.0	307.4	327.7	349.3	360.8	370.9	389.9	406.6	415.4	423.1
60°	265.5	266.8	282.0	302.3	325.2	336.7	346.7	364.6	378.5	387.5	393.8
62.5°	233.8	241.3	257.9	277.0	299.8	311.2	322.7	339.2	353.2	360.8	364.6
65°	205.8	214.7	233.8	254.1	277.0	285.8	297.2	313.7	325.2	332.8	336.7
67.5°	179.1	190.6	209.7	231.2	252.8	264.2	273.1	288.4	298.6	304.9	308.7
70°	153.7	167.7	188.1	208.3	228.7	238.8	247.7	262.9	271.9	278.2	280.7
72.5°	130.8	144.9	166.5	185.5	204.6	216.0	223.6	237.6	246.4	251.5	252.8
75°	109.2	124.5	143.5	162.6	181.6	190.6	199.5	210.9	219.7	224.8	226.2
77.5°	90.1	104.2	123.3	141.0	157.5	165.1	174.0	185.5	193.1	196.9	198.1
80°	71.1	85.2	101.7	118.2	133.3	138.4	146.1	156.3	165.1	166.5	166.5
82.5°	53.4	66.0	80.1	94.0	106.8	111.7	116.8	125.8	130.8	132.1	130.8
85°	35.5	44.4	54.6	64.8	75.0	78.7	83.8	90.1	90.1	92.7	88.9
87.5°	17.8	21.6	27.9	31.8	38.1	40.6	43.2	44.4	44.4	44.4	43.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	740.6	740.6	740.6	740.6	740.6	740.6	740.6	740.6	740.6	740.6
2.5°	716.4	715.2	712.7	712.7	712.7	711.5	711.5	711.5	710.1	710.1
5°	717.8	721.5	726.6	730.5	730.5	730.5	731.7	731.7	733.0	733.0
7.5°	733.0	736.8	741.9	745.7	748.2	749.5	753.3	754.6	757.1	757.1
10°	750.8	757.1	763.5	767.3	771.1	773.7	774.9	780.0	780.0	780.0
12.5°	762.2	772.4	781.2	790.2	794.0	796.5	800.3	802.8	806.7	806.7
15°	774.9	786.3	796.5	806.7	810.5	814.3	819.4	823.2	824.4	825.7
17.5°	781.2	795.3	806.7	816.9	820.6	824.4	832.0	837.1	839.7	841.0
20°	783.8	799.0	813.0	824.4	829.5	833.4	841.0	846.0	849.9	849.9
22.5°	782.5	797.8	813.0	825.7	830.8	834.6	842.2	847.3	849.9	851.1
25°	776.2	791.4	806.7	819.4	824.4	828.3	835.9	841.0	844.8	844.8
27.5°	763.5	780.0	794.0	806.7	810.5	816.9	823.2	828.3	832.0	833.4
30°	745.7	762.2	777.5	787.6	792.7	796.5	802.8	809.2	810.5	811.8
32.5°	724.1	740.6	753.3	763.5	768.6	772.4	778.7	783.8	786.3	785.1
35°	699.9	713.9	726.6	736.8	740.6	743.1	749.5	752.1	754.6	754.6
37.5°	673.2	684.8	697.4	705.0	707.6	710.1	715.2	719.0	719.0	720.3
40°	641.6	654.2	663.2	670.7	673.2	674.6	679.7	680.9	682.2	682.2
42.5°	612.3	622.5	628.8	633.9	636.5	639.0	641.6	641.6	641.6	642.8
45°	580.5	588.2	594.5	598.4	599.6	600.9	602.1	603.5	603.5	603.5
47.5°	550.1	556.4	560.3	564.0	564.0	565.3	565.3	566.6	566.6	566.6
50°	517.1	522.1	524.6	527.2	527.2	527.2	528.5	528.5	528.5	528.5
52.5°	486.5	490.4	491.6	492.9	492.9	494.2	494.2	492.9	494.2	492.9
55°	456.1	458.6	459.8	458.6	459.8	459.8	459.8	458.6	459.8	459.8
57.5°	425.6	426.8	426.8	425.6	426.8	425.6	425.6	426.8	428.2	428.2
60°	395.0	395.0	393.8	393.8	393.8	393.8	393.8	396.4	396.4	397.6
62.5°	365.9	365.9	364.6	363.4	363.4	363.4	364.6	365.9	367.1	367.1
65°	336.7	336.7	335.3	334.1	334.1	334.1	335.3	336.7	337.9	340.4
67.5°	310.0	307.4	307.4	306.1	306.1	306.1	308.7	310.0	311.2	311.2
70°	279.5	279.5	277.0	278.2	278.2	278.2	279.5	280.7	282.0	283.3
72.5°	252.8	251.5	250.3	251.5	251.5	251.5	252.8	255.4	256.6	257.9
75°	226.2	224.8	224.8	223.6	223.6	224.8	224.8	226.2	226.2	226.2
77.5°	198.1	194.4	193.1	190.6	190.6	190.6	190.6	190.6	190.6	190.6
80°	165.1	160.0	156.3	156.3	154.9	154.9	154.9	154.9	153.7	154.9
82.5°	127.0	124.5	120.7	119.4	119.4	119.4	116.8	116.8	116.8	119.4
85°	86.4	85.2	81.3	80.1	80.1	78.7	77.5	77.5	78.7	76.2
87.5°	42.0	40.6	38.1	38.1	38.1	36.9	36.9	35.5	36.9	35.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P976330  
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**CIE UGR TABLE:**

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room Dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	13.4	15.1	13.8	15.4	15.7	15.0	16.6	15.3	16.9	17.3
	3H	15.2	16.7	15.5	17.0	17.4	17.1	18.7	17.5	19.0	19.3
	4H	15.8	17.3	16.2	17.6	18.0	18.1	19.6	18.5	19.9	20.3
	6H	16.4	17.7	16.8	18.1	18.4	19.0	20.3	19.4	20.7	21.1
	8H	16.5	17.8	17.0	18.2	18.6	19.3	20.6	19.7	21.0	21.4
	12H	16.7	17.9	17.1	18.3	18.7	19.5	20.8	20.0	21.1	21.6
4H	2H	14.6	16.0	15.0	16.4	16.7	15.7	17.1	16.1	17.5	17.8
	3H	16.7	17.9	17.1	18.3	18.7	18.1	19.3	18.5	19.7	20.1
	4H	17.6	18.8	18.1	19.2	19.6	19.3	20.4	19.7	20.8	21.2
	6H	18.4	19.4	18.8	19.8	20.2	20.3	21.2	20.7	21.7	22.1
	8H	18.6	19.6	19.1	20.0	20.5	20.6	21.6	21.1	22.0	22.5
	12H	18.8	19.7	19.3	20.1	20.6	21.0	21.8	21.4	22.3	22.7
8H	4H	18.4	19.3	18.9	19.8	20.2	19.7	20.6	20.2	21.1	21.5
	6H	19.5	20.2	20.0	20.7	21.2	20.9	21.7	21.4	22.2	22.6
	8H	19.9	20.6	20.4	21.1	21.6	21.4	22.1	21.9	22.6	23.1
	12H	20.2	20.9	20.7	21.3	21.9	21.8	22.4	22.3	22.9	23.5
12H	4H	18.5	19.4	19.0	19.8	20.3	19.8	20.6	20.3	21.1	21.6
	6H	19.7	20.4	20.2	20.9	21.4	21.1	21.7	21.6	22.2	22.7
	8H	20.3	20.9	20.8	21.4	21.9	21.6	22.2	22.1	22.7	23.3

LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Report Prepared for

Cooper Lighting Solutions

Metalux

Report Number: SP1-2506-457-5

Test Date: 07/02/2025

Luminaire Tested: 24SR-LD2-64-C-UNV-L930-CD1-U

Data in this report applies to families of products including 24SR-LD2-64-C-UNV-L930-CD1-U

**Test Information**

Test Method: LM-79-2019  
 Report Number: SP1-2506-457-5  
 Test Lab: COOPER LIGHTING SOLUTIONS  
 Photometer: SP1 - 76IN SPHERE  
 Measurement Geometry: 4π  
 Issue Date: 07/02/2025  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: Metalux  
 Catalog Number: **24SR-LD2-64-C-UNV-L930-CD1-U**  
 Description: 2X4 SKYRIDGE 6400LM Fixture with new LTN chip

**Spectral Parameters**

CCT (K): 2935  
 CIE u': 0.2530  
 CIE v': 0.5224  
 Duv: -0.0002  
 CIE x: 0.4413  
 CIE y: 0.4049  
 CIE z: 0.1538  
 Peak Wavelength (nm): 630  
 Dominant Wavelength (nm): 583  
 Purity: 53.99297  
 Rf: 91.8  
 Rg: 99.6

CRI (Ra):	93.5		
R1:	94.7	R9:	55.1
R2:	97.2	R10:	92.3
R3:	98.6	R11:	97.0
R4:	95.2	R12:	86.4
R5:	94.7	R13:	95.3
R6:	96.8	R14:	98.2
R7:	90.9	R15:	89.3
R8:	80.4		



**Test Conditions**

Stabilization Time: 40M  
 Operation Time: 1H 40M  
 Sphere Temperature (°C): 25.0

REPORT NUMBER: SP1-2506-457-5

Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	6/16/2025	12/16/2025
Power Meter	XITRON INXT2011004	1/21/2025	1/21/2026
AC Power Source	CHROMA 61603 IN0063	10/22/2024	10/22/2025
DC Power Source	AGILENT E3634A IN0208	10/22/2024	10/22/2025
Sphere Thermometer	ONSET IN0085	10/22/2024	10/22/2025
Room Thermometer	ONSET IN0046	10/22/2024	10/22/2025

REPORT NUMBER: SP1-2506-457-5

CIE 1931 Chromaticity Diagram



CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 7-step quadrangle

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**Photopic Flux vs. Wavelength**



**Photopic Lumens: NR**

λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	108	NR	620	338	NR	750	8	NR	880	0	NR
365	0	NR	495	129	NR	625	339	NR	755	7	NR	885	0	NR
370	0	NR	500	151	NR	630	1000	NR	760	6	NR	890	0	NR
375	0	NR	505	168	NR	635	695	NR	765	5	NR	895	0	NR
380	0	NR	510	179	NR	640	225	NR	770	4	NR	900	0	NR
385	0	NR	515	187	NR	645	214	NR	775	4	NR	905	0	NR
390	0	NR	520	194	NR	650	190	NR	780	3	NR	910	0	NR
395	1	NR	525	199	NR	655	160	NR	785	3	NR	915	0	NR
400	2	NR	530	205	NR	660	136	NR	790	2	NR	920	0	NR
405	2	NR	535	213	NR	665	115	NR	795	2	NR	925	0	NR
410	4	NR	540	219	NR	670	106	NR	800	2	NR	930	0	NR
415	7	NR	545	228	NR	675	87	NR	805	1	NR	935	0	NR
420	12	NR	550	236	NR	680	74	NR	810	1	NR	940	0	NR
425	20	NR	555	247	NR	685	64	NR	815	1	NR	945	0	NR
430	32	NR	560	257	NR	690	55	NR	820	1	NR	950	0	NR
435	50	NR	565	267	NR	695	47	NR	825	1	NR	955	0	NR
440	79	NR	570	277	NR	700	40	NR	830	1	NR	960	0	NR
445	133	NR	575	287	NR	705	34	NR	835	1	NR	965	0	NR
450	194	NR	580	297	NR	710	29	NR	840	1	NR	970	0	NR
455	168	NR	585	308	NR	715	24	NR	845	0	NR	975	0	NR
460	117	NR	590	315	NR	720	20	NR	850	0	NR	980	0	NR
465	101	NR	595	320	NR	725	17	NR	855	0	NR	985	0	NR
470	85	NR	600	327	NR	730	14	NR	860	0	NR	990	0	NR
475	73	NR	605	331	NR	735	12	NR	865	0	NR	995	0	NR
480	77	NR	610	367	NR	740	10	NR	870	0	NR	1000	0	NR
485	91	NR	615	398	NR	745	9	NR	875	0	NR			

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Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.4

λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	108	NR	620	338	NR	750	8	NR	880	0	NR
365	0	NR	495	129	NR	625	339	NR	755	7	NR	885	0	NR
370	0	NR	500	151	NR	630	1000	NR	760	6	NR	890	0	NR
375	0	NR	505	168	NR	635	695	NR	765	5	NR	895	0	NR
380	0	NR	510	179	NR	640	225	NR	770	4	NR	900	0	NR
385	0	NR	515	187	NR	645	214	NR	775	4	NR	905	0	NR
390	0	NR	520	194	NR	650	190	NR	780	3	NR	910	0	NR
395	1	NR	525	199	NR	655	160	NR	785	3	NR	915	0	NR
400	2	NR	530	205	NR	660	136	NR	790	2	NR	920	0	NR
405	2	NR	535	213	NR	665	115	NR	795	2	NR	925	0	NR
410	4	NR	540	219	NR	670	106	NR	800	2	NR	930	0	NR
415	7	NR	545	228	NR	675	87	NR	805	1	NR	935	0	NR
420	12	NR	550	236	NR	680	74	NR	810	1	NR	940	0	NR
425	20	NR	555	247	NR	685	64	NR	815	1	NR	945	0	NR
430	32	NR	560	257	NR	690	55	NR	820	1	NR	950	0	NR
435	50	NR	565	267	NR	695	47	NR	825	1	NR	955	0	NR
440	79	NR	570	277	NR	700	40	NR	830	1	NR	960	0	NR
445	133	NR	575	287	NR	705	34	NR	835	1	NR	965	0	NR
450	194	NR	580	297	NR	710	29	NR	840	1	NR	970	0	NR
455	168	NR	585	308	NR	715	24	NR	845	0	NR	975	0	NR
460	117	NR	590	315	NR	720	20	NR	850	0	NR	980	0	NR
465	101	NR	595	320	NR	725	17	NR	855	0	NR	985	0	NR
470	85	NR	600	327	NR	730	14	NR	860	0	NR	990	0	NR
475	73	NR	605	331	NR	735	12	NR	865	0	NR	995	0	NR
480	77	NR	610	367	NR	740	10	NR	870	0	NR	1000	0	NR
485	91	NR	615	398	NR	745	9	NR	875	0	NR			

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**Melanopic Flux vs. Wavelength**



**Melanopic Lumens: NR**

**M/P: 2.72**

λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	108	NR	620	338	NR	750	8	NR	880	0	NR
365	0	NR	495	129	NR	625	339	NR	755	7	NR	885	0	NR
370	0	NR	500	151	NR	630	1000	NR	760	6	NR	890	0	NR
375	0	NR	505	168	NR	635	695	NR	765	5	NR	895	0	NR
380	0	NR	510	179	NR	640	225	NR	770	4	NR	900	0	NR
385	0	NR	515	187	NR	645	214	NR	775	4	NR	905	0	NR
390	0	NR	520	194	NR	650	190	NR	780	3	NR	910	0	NR
395	1	NR	525	199	NR	655	160	NR	785	3	NR	915	0	NR
400	2	NR	530	205	NR	660	136	NR	790	2	NR	920	0	NR
405	2	NR	535	213	NR	665	115	NR	795	2	NR	925	0	NR
410	4	NR	540	219	NR	670	106	NR	800	2	NR	930	0	NR
415	7	NR	545	228	NR	675	87	NR	805	1	NR	935	0	NR
420	12	NR	550	236	NR	680	74	NR	810	1	NR	940	0	NR
425	20	NR	555	247	NR	685	64	NR	815	1	NR	945	0	NR
430	32	NR	560	257	NR	690	55	NR	820	1	NR	950	0	NR
435	50	NR	565	267	NR	695	47	NR	825	1	NR	955	0	NR
440	79	NR	570	277	NR	700	40	NR	830	1	NR	960	0	NR
445	133	NR	575	287	NR	705	34	NR	835	1	NR	965	0	NR
450	194	NR	580	297	NR	710	29	NR	840	1	NR	970	0	NR
455	168	NR	585	308	NR	715	24	NR	845	0	NR	975	0	NR
460	117	NR	590	315	NR	720	20	NR	850	0	NR	980	0	NR
465	101	NR	595	320	NR	725	17	NR	855	0	NR	985	0	NR
470	85	NR	600	327	NR	730	14	NR	860	0	NR	990	0	NR
475	73	NR	605	331	NR	735	12	NR	865	0	NR	995	0	NR
480	77	NR	610	367	NR	740	10	NR	870	0	NR	1000	0	NR
485	91	NR	615	398	NR	745	9	NR	875	0	NR			

**Summary**

$R_f = 91.8$   
 $R_g = 99.6$   
 $CIE R_a = 93.5$   
 $R_9 = 55.1$

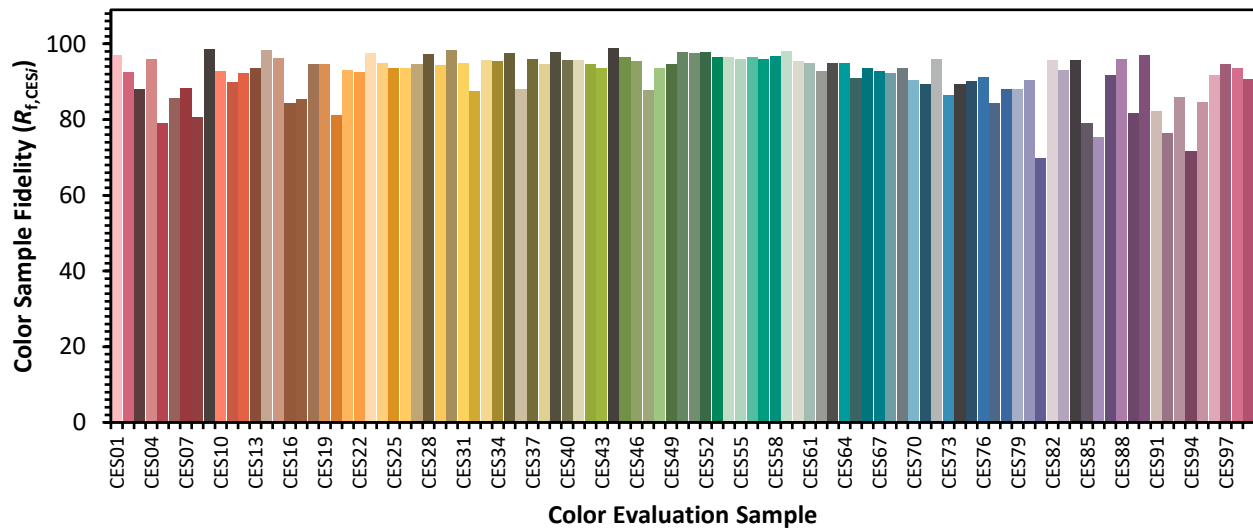


**Color Vector Graphics**

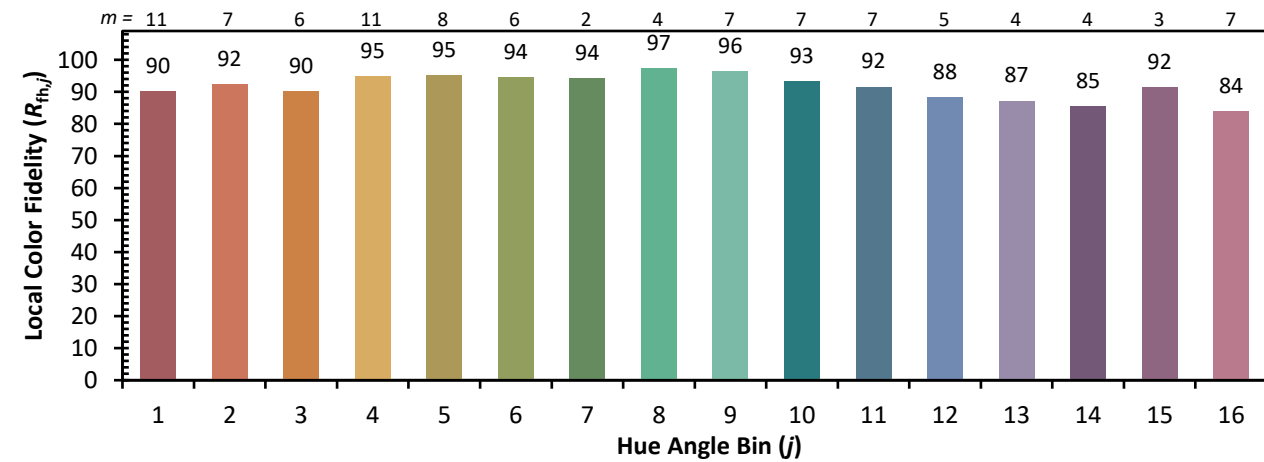
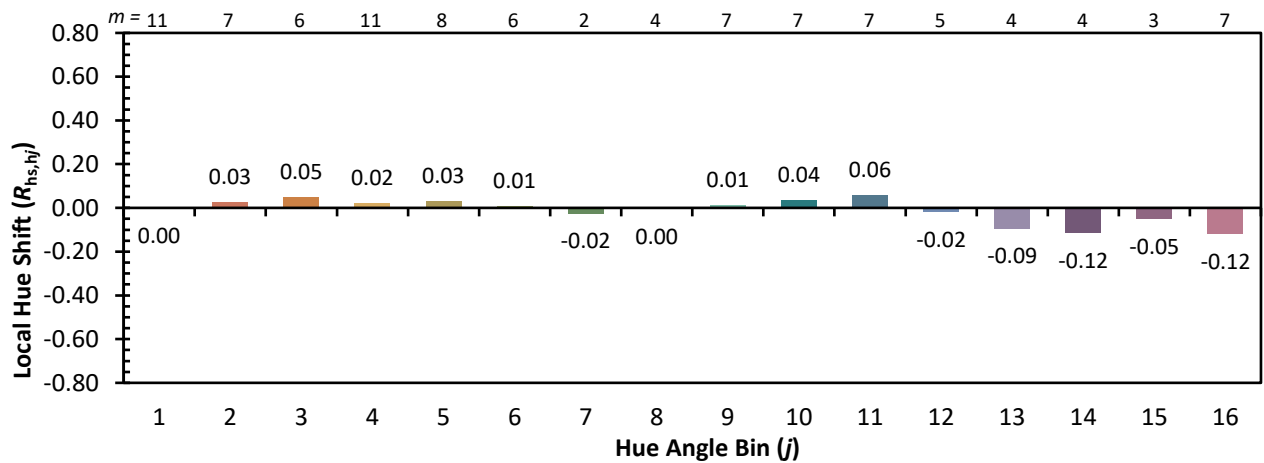
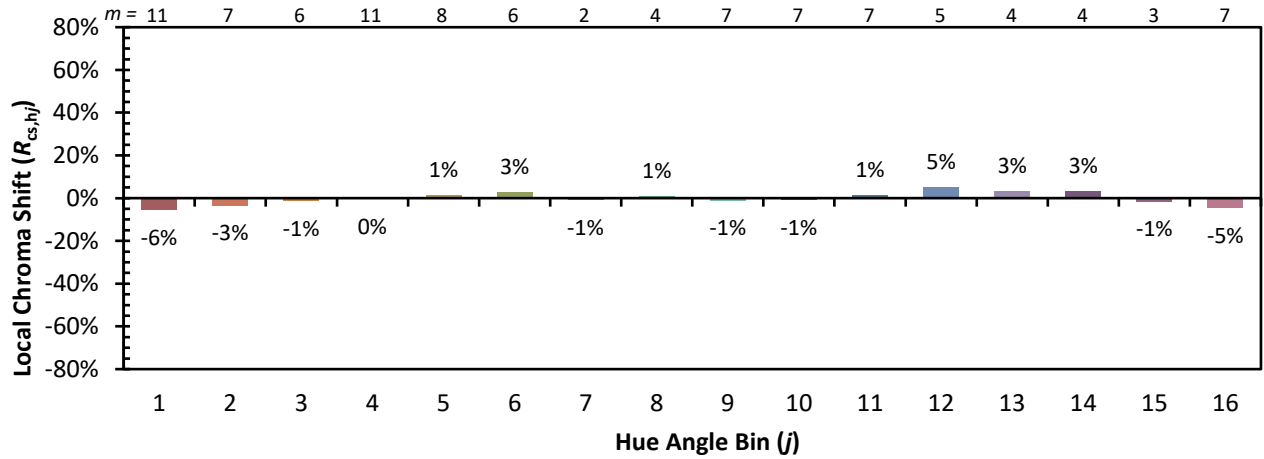


Individual Sample Fidelity Index ( $R_{f,i}$ )

CES01 = 86	CES26 = 94	CES51 = 97	CES76 = 91
CES02 = 63	CES27 = 95	CES52 = 98	CES77 = 84
CES03 = 32	CES28 = 97	CES53 = 97	CES78 = 88
CES04 = 70	CES29 = 94	CES54 = 96	CES79 = 88
CES05 = 51	CES30 = 98	CES55 = 96	CES80 = 90
CES06 = 51	CES31 = 95	CES56 = 97	CES81 = 70
CES07 = 44	CES32 = 87	CES57 = 96	CES82 = 96
CES08 = 42	CES33 = 96	CES58 = 97	CES83 = 93
CES09 = 29	CES34 = 95	CES59 = 98	CES84 = 96
CES10 = 76	CES35 = 97	CES60 = 95	CES85 = 79
CES11 = 59	CES36 = 88	CES61 = 95	CES86 = 75
CES12 = 65	CES37 = 96	CES62 = 93	CES87 = 92
CES13 = 44	CES38 = 95	CES63 = 95	CES88 = 96
CES14 = 74	CES39 = 98	CES64 = 95	CES89 = 82
CES15 = 72	CES40 = 96	CES65 = 91	CES90 = 97
CES16 = 48	CES41 = 96	CES66 = 94	CES91 = 82
CES17 = 50	CES42 = 95	CES67 = 93	CES92 = 77
CES18 = 57	CES43 = 94	CES68 = 92	CES93 = 86
CES19 = 72	CES44 = 99	CES69 = 93	CES94 = 72
CES20 = 67	CES45 = 97	CES70 = 91	CES95 = 85
CES21 = 86	CES46 = 95	CES71 = 89	CES96 = 92
CES22 = 79	CES47 = 88	CES72 = 96	CES97 = 95
CES23 = 92	CES48 = 94	CES73 = 86	CES98 = 94
CES24 = 91	CES49 = 95	CES74 = 89	CES99 = 91
CES25 = 72	CES50 = 98	CES75 = 90	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)