

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: P1433738

Luminaire Tested: EHBR1-18-UNV-A1-L940

Issue Date: 3/13/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1433738  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2601-654-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/13/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: EHBR1-18-UNV-A1-L940  
Description: Elevate Round Highbay at, 19000 lumens, 4000K 90CRI LEDs with A lens  
Light Source: -  
Ballast/Driver: -

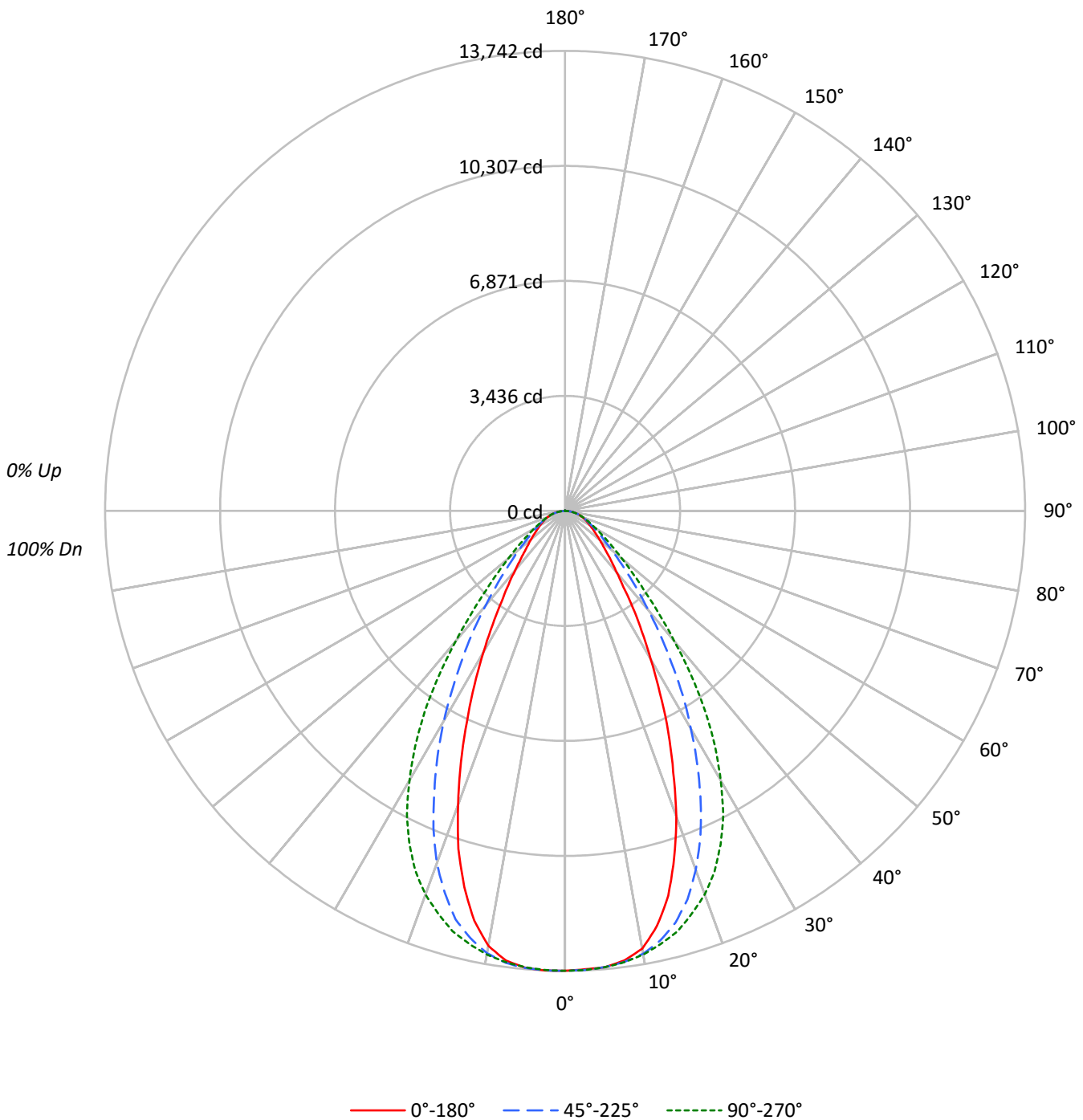
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 17064.9 lumens  
Efficiency: N/A  
Efficacy: 180.2 lumens/watt  
Spacing Criteria (0/90/45): 0.8 / 1.07 / 0.95  
Luminous Opening: Circular (Dia: 1.71' x H: 0')  
CIE Type: Direct

Input Watts (W): 94.7  
Input Voltage (V): NR  
Input Current (Ain): 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: 24 FT

TEST NUMBER: P1433738  
CATALOG NUMBER: EHBR1-18-UNV-A1-L940

### Luminous Intensity Polar Plot





TEST NUMBER: P1433738  
 CATALOG NUMBER: EHBR1-18-UNV-A1-L940

**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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	92	90		
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80		
3	98	90	83	78	95	88	82	78	85	81	77	83	79	75	80	77	74	72		
4	91	82	75	70	89	81	75	70	79	73	69	77	72	68	75	71	67	65		
5	86	76	69	63	84	75	68	63	73	67	62	71	66	62	69	65	61	60		
6	81	70	63	58	79	69	62	58	68	62	57	66	61	57	65	60	56	55		
7	76	65	58	53	75	64	58	53	63	57	52	62	56	52	60	56	52	50		
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46		
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43		
10	64	53	47	42	63	53	46	42	52	46	42	51	46	42	50	45	42	40		

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

	0°	45°	90°	135°	180°
0°	64507	64507	64507	64507	64507
5°	64499	64489	64492	64606	64567
10°	63319	64056	64158	63977	62904
15°	57870	61908	63182	61412	56541
20°	48563	57036	60932	55962	46672
25°	37835	49682	56945	47868	35875
30°	27799	40784	50422	39236	26386
35°	20215	31711	41803	30345	18895
40°	14686	23651	31110	22653	14233
45°	11703	17498	21973	16740	11298
50°	9839	13321	16116	12882	9690
55°	8732	10689	12402	10510	8614
60°	8036	9107	10084	9049	8093
65°	7721	8251	8705	8277	7794
70°	7616	7798	8038	7841	7692
75°	7537	7490	7537	7512	7610
80°	7578	7034	6877	7142	7578
85°	6838	5798	5738	5889	7037

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 67.5°  
 Vertical Angle: 45°  
 Luminance: 23023 cd/sqm



TEST NUMBER: P1433738  
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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1297.2	7.6
10°-20°	3486.4	20.4
20°-30°	4239.4	24.8
30°-40°	3453.3	20.2
40°-50°	2073.4	12.1
50°-60°	1193.2	7.0
60°-70°	746.8	4.4
70°-80°	439.8	2.6
80°-90°	128.6	0.8
90°-100°	0.1	0.0
100°-110°	0.1	0.0
110°-120°	0.1	0.0
120°-130°	0.2	0.0
130°-140°	0.9	0.0
140°-150°	1.6	0.0
150°-160°	1.7	0.0
160°-170°	1.6	0.0
170°-180°	0.7	0.0
0°-30°	9023.0	52.9
0°-40°	12476.3	73.1
0°-60°	15742.9	92.3
0°-90°	17058.1	100.0
90°-120°	0.2	0.0
90°-150°	2.9	0.0
90°-180°	7.0	0.0
0°-180°	17064.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	13736	13736	13736	13736	13736	
5°	13682	13680	13681	13705	13697	1293
15°	11903	12734	12996	12632	11630	3275
25°	7302	9588	10990	9238	6924	3327
35°	3526	5531	7292	5293	3296	2231
45°	1762	2635	3309	2521	1701	1390
55°	1066	1306	1515	1284	1052	964
65°	695	742	783	745	701	691
75°	415	413	415	414	419	440
85°	127	108	106	109	131	135
90°	1	0	0	0	0	6
95°	1	0	0	0	0	0
105°	1	0	0	0	1	1
115°	1	0	0	0	1	1
125°	1	0	0	0	1	1
135°	1	1	1	1	1	1
145°	3	2	2	3	3	2
155°	4	3	3	4	5	2
165°	7	6	5	6	7	2
175°	9	8	6	8	9	1
180°	8	8	8	8	8	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	13736.4	13736.4	13736.4	13736.4	13736.4	13736.4	13736.4	13736.4	13736.4
2.5°	13706.2	13718.6	13723.7	13726.6	13729.8	13738.4	13742.2	13736.1	13741.3
5°	13682.3	13683.2	13680.3	13693.2	13680.8	13689.5	13705.1	13699.0	13696.7
7.5°	13543.1	13571.8	13588.8	13593.1	13595.4	13606.0	13617.0	13555.2	13545.9
10°	13278.4	13326.5	13433.1	13463.7	13454.5	13471.7	13416.4	13254.8	13191.5
12.5°	12698.1	12867.0	13144.3	13267.8	13245.3	13260.5	13072.4	12731.1	12534.9
15°	11903.2	12150.9	12733.7	12977.2	12995.8	12977.2	12631.6	11966.7	11629.8
17.5°	10846.4	11303.8	12162.1	12634.5	12607.4	12616.4	11960.4	10977.6	10592.1
20°	9717.4	10205.2	11412.9	12200.9	12192.5	12142.5	11198.0	9901.9	9339.1
22.5°	8440.6	9069.6	10554.4	11667.8	11664.7	11581.2	10269.5	8727.2	8121.3
25°	7301.9	7918.7	9588.3	11014.8	10990.0	10895.0	9238.1	7555.4	6923.6
27.5°	6124.6	6765.9	8556.9	10249.4	10232.5	10128.9	8252.1	6460.1	5858.7
30°	5126.6	5712.9	7521.2	9407.3	9298.6	9286.7	7235.7	5445.9	4865.9
32.5°	4271.5	4774.1	6544.6	8526.7	8334.2	8389.1	6222.7	4597.8	4022.9
35°	3526.1	3968.9	5531.4	7508.2	7291.8	7362.9	5293.1	3772.6	3295.9
37.5°	2861.8	3287.6	4672.6	6517.6	6186.8	6320.8	4475.5	3150.6	2768.6
40°	2395.7	2733.4	3858.1	5430.7	5074.8	5293.1	3695.3	2627.9	2321.8
42.5°	2064.2	2284.7	3184.3	4392.9	4119.9	4274.7	3045.6	2196.9	1967.9
45°	1762.2	1938.0	2634.8	3466.6	3308.6	3452.1	2520.6	1873.3	1701.2
47.5°	1539.2	1674.7	2169.0	2799.3	2701.2	2746.7	2105.1	1634.8	1494.9
50°	1346.7	1451.5	1823.4	2259.3	2205.9	2233.7	1763.3	1422.4	1326.3
52.5°	1197.2	1273.9	1529.4	1856.9	1830.4	1834.7	1502.7	1251.2	1181.6
55°	1066.5	1120.0	1305.6	1521.1	1514.8	1515.9	1283.7	1108.8	1052.1
57.5°	952.3	996.6	1122.1	1277.7	1268.5	1270.5	1111.6	984.8	948.2
60°	855.6	885.3	969.6	1079.8	1073.7	1071.1	963.5	874.3	861.7
62.5°	769.9	788.9	847.3	925.5	914.0	916.6	847.0	789.8	771.0
65°	694.8	701.4	742.5	790.9	783.4	789.8	744.9	705.7	701.4
67.5°	621.4	628.0	652.2	684.8	676.1	681.3	652.8	629.8	626.1
70°	554.7	554.4	567.9	585.4	585.4	586.4	571.1	557.3	560.2
72.5°	485.7	483.9	487.9	499.7	496.6	507.5	491.4	487.1	487.6
75°	415.4	410.6	412.8	418.9	415.4	421.2	414.0	419.4	419.4
77.5°	349.3	340.1	337.2	338.1	331.8	340.3	342.1	345.8	354.5
80°	280.2	267.3	260.1	259.8	254.3	259.8	264.1	271.9	280.2
82.5°	208.0	196.8	184.7	182.4	179.0	182.1	187.9	197.0	210.6
85°	126.9	115.1	107.6	103.6	106.5	106.5	109.3	122.2	130.6
87.5°	45.7	40.0	32.8	33.1	33.9	35.1	36.5	46.0	50.3
90°	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
92.5°	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
95°	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
97.5°	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
100°	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
102.5°	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
105°	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
107.5°	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
110°	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
115°	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
117.5°	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
120°	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.6
122.5°	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.3	0.8
125°	0.8	0.3	0.0	0.0	0.0	0.0	0.3	0.3	0.8
127.5°	0.8	0.3	0.0	0.0	0.0	0.0	0.3	0.6	0.8
130°	0.8	0.6	0.3	0.0	0.3	0.3	0.6	0.6	0.8
132.5°	1.1	0.8	0.8	0.6	0.6	0.8	0.8	1.1	1.1
135°	1.4	1.1	1.1	0.8	1.1	1.1	1.1	1.1	1.4
137.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.8
140°	2.0	1.8	1.8	1.8	1.8	1.8	1.8	2.0	2.0
142.5°	2.3	2.3	2.0	2.0	2.0	2.3	2.3	2.3	2.6
145°	2.6	2.6	2.3	2.3	2.3	2.6	2.6	2.9	2.9
147.5°	3.4	3.2	2.6	2.6	2.6	2.6	2.9	3.2	3.4
150°	3.7	3.4	2.9	2.9	2.9	2.9	3.2	3.7	4.0
152.5°	4.0	3.7	3.2	2.9	2.9	2.9	3.4	3.7	4.3
155°	4.3	4.0	3.4	2.9	2.9	3.2	3.7	4.3	4.6
157.5°	5.2	4.6	4.0	3.4	3.4	3.7	4.3	4.8	5.2
160°	5.8	5.2	4.6	4.0	4.0	4.3	4.8	5.5	5.8
162.5°	6.3	5.8	4.8	4.6	4.3	4.6	5.2	6.1	6.3
165°	6.6	6.1	5.5	4.8	4.8	4.8	5.8	6.3	6.6
167.5°	6.9	6.6	5.8	5.2	5.2	5.2	6.1	6.6	6.9
170°	7.2	6.9	6.1	5.5	5.2	5.5	6.3	6.9	7.2
172.5°	7.7	7.5	6.6	6.1	5.8	6.1	6.9	7.5	7.7
175°	8.7	8.0	7.5	6.6	6.3	6.6	7.5	8.0	8.7
177.5°	8.9	8.4	7.7	6.9	6.6	6.9	7.7	8.4	8.9
180°	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7



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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	16.86	18.13	17.23	18.44	18.76	17.84	19.11	18.21	19.42	19.74
	3H	18.43	19.55	18.81	19.89	20.25	19.19	20.31	19.57	20.64	21.01
	4H	19.10	20.15	19.50	20.50	20.88	19.74	20.79	20.15	21.15	21.53
	6H	19.65	20.62	20.07	20.99	21.38	20.18	21.14	20.59	21.51	21.91
	8H	19.85	20.77	20.28	21.16	21.56	20.31	21.23	20.75	21.62	22.03
	12H	19.98	20.85	20.41	21.24	21.67	20.39	21.26	20.82	21.65	22.08
4H	2H	17.43	18.48	17.84	18.84	19.22	18.20	19.25	18.61	19.60	19.99
	3H	19.22	20.09	19.64	20.49	20.90	19.79	20.66	20.21	21.06	21.47
	4H	20.02	20.79	20.46	21.21	21.66	20.49	21.26	20.93	21.68	22.13
	6H	20.70	21.37	21.17	21.82	22.29	21.06	21.73	21.53	22.18	22.65
	8H	20.95	21.58	21.42	22.02	22.50	21.25	21.87	21.72	22.32	22.79
	12H	21.12	21.67	21.61	22.16	22.63	21.36	21.91	21.85	22.40	22.87
8H	4H	20.30	20.92	20.77	21.37	21.84	20.72	21.35	21.19	21.79	22.27
	6H	21.12	21.63	21.62	22.12	22.61	21.42	21.93	21.93	22.43	22.91
	8H	21.45	21.90	21.97	22.42	22.91	21.69	22.14	22.21	22.66	23.15
	12H	21.70	22.10	22.22	22.60	23.17	21.88	22.28	22.39	22.77	23.35
12H	4H	20.32	20.87	20.80	21.35	21.83	20.74	21.29	21.22	21.77	22.25
	6H	21.17	21.62	21.69	22.14	22.63	21.47	21.92	21.99	22.44	22.93
	8H	21.55	21.95	22.07	22.45	23.02	21.79	22.19	22.30	22.68	23.26

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

Report Prepared for

Cooper Lighting Solutions

Metalux

Report Number: SP1-2506-472-7

Test Date: 08/04/2025

Luminaire Tested: EHBR-60-L940-N

Data in this report applies to families of products including EHBR-60-L940-N

**Test Information**

Test Method: LM-79-2019  
 Report Number: SP1-2506-472-7  
 Test Lab: COOPER LIGHTING SOLUTIONS  
 Photometer: SP1 - 76IN SPHERE  
 Measurement Geometry: 4π  
 Issue Date: 08/05/2025  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: Metalux  
 Catalog Number: **EHBR-60-L940-N**  
 Description: Elevate Round Highbay at, 60000 lumens, 4000K 90CRI LEDs with N lens

**Spectral Parameters**

CCT (K): 3963  
 CIE u': 0.2267  
 CIE v': 0.5003  
 Duv: -0.0016  
 CIE x: 0.3810  
 CIE y: 0.3738  
 CIE z: 0.2453  
 Peak Wavelength (nm): 630  
 Dominant Wavelength (nm): 580  
 Purity: 26.49712  
 Rf: 90.7  
 Rg: 101

CRI (Ra):	93.4		
R1:	95.2	R9:	66.4
R2:	95.1	R10:	86.6
R3:	93.3	R11:	94.4
R4:	94.5	R12:	75.4
R5:	94.2	R13:	95.0
R6:	92.9	R14:	95.4
R7:	94.0	R15:	92.8
R8:	87.7		



**Test Conditions**

Stabilization Time: 44M  
 Operation Time: 1H 44M  
 Sphere Temperature (°C): 25.0

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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

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**CIE 1931 Chromaticity Diagram**



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



Point lies inside the ANSI 4000K 4-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	141	NR	620	276	NR	750	5	NR	880	0	NR
365	0	NR	495	167	NR	625	279	NR	755	4	NR	885	0	NR
370	0	NR	500	193	NR	630	1000	NR	760	4	NR	890	0	NR
375	0	NR	505	215	NR	635	628	NR	765	3	NR	895	0	NR
380	0	NR	510	230	NR	640	164	NR	770	3	NR	900	0	NR
385	0	NR	515	243	NR	645	161	NR	775	2	NR	905	0	NR
390	1	NR	520	251	NR	650	137	NR	780	2	NR	910	0	NR
395	2	NR	525	256	NR	655	111	NR	785	2	NR	915	0	NR
400	3	NR	530	262	NR	660	92	NR	790	1	NR	920	0	NR
405	4	NR	535	267	NR	665	76	NR	795	1	NR	925	0	NR
410	6	NR	540	271	NR	670	71	NR	800	1	NR	930	0	NR
415	11	NR	545	276	NR	675	56	NR	805	1	NR	935	0	NR
420	20	NR	550	280	NR	680	47	NR	810	1	NR	940	0	NR
425	37	NR	555	285	NR	685	40	NR	815	1	NR	945	0	NR
430	63	NR	560	290	NR	690	34	NR	820	1	NR	950	0	NR
435	108	NR	565	294	NR	695	29	NR	825	1	NR	955	0	NR
440	186	NR	570	296	NR	700	25	NR	830	0	NR	960	0	NR
445	323	NR	575	298	NR	705	21	NR	835	0	NR	965	0	NR
450	403	NR	580	299	NR	710	18	NR	840	0	NR	970	0	NR
455	293	NR	585	298	NR	715	15	NR	845	0	NR	975	0	NR
460	214	NR	590	296	NR	720	13	NR	850	0	NR	980	0	NR
465	180	NR	595	288	NR	725	11	NR	855	0	NR	985	0	NR
470	132	NR	600	286	NR	730	9	NR	860	0	NR	990	0	NR
475	109	NR	605	282	NR	735	8	NR	865	0	NR	995	0	NR
480	110	NR	610	311	NR	740	7	NR	870	0	NR	1000	0	NR
485	121	NR	615	334	NR	745	6	NR	875	0	NR			

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**Scotopic Flux vs. Wavelength**



**Scotopic Lumens: NR**

**S/P: 1.76**

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	141	NR	620	276	NR	750	5	NR	880	0	NR
365	0	NR	495	167	NR	625	279	NR	755	4	NR	885	0	NR
370	0	NR	500	193	NR	630	1000	NR	760	4	NR	890	0	NR
375	0	NR	505	215	NR	635	628	NR	765	3	NR	895	0	NR
380	0	NR	510	230	NR	640	164	NR	770	3	NR	900	0	NR
385	0	NR	515	243	NR	645	161	NR	775	2	NR	905	0	NR
390	1	NR	520	251	NR	650	137	NR	780	2	NR	910	0	NR
395	2	NR	525	256	NR	655	111	NR	785	2	NR	915	0	NR
400	3	NR	530	262	NR	660	92	NR	790	1	NR	920	0	NR
405	4	NR	535	267	NR	665	76	NR	795	1	NR	925	0	NR
410	6	NR	540	271	NR	670	71	NR	800	1	NR	930	0	NR
415	11	NR	545	276	NR	675	56	NR	805	1	NR	935	0	NR
420	20	NR	550	280	NR	680	47	NR	810	1	NR	940	0	NR
425	37	NR	555	285	NR	685	40	NR	815	1	NR	945	0	NR
430	63	NR	560	290	NR	690	34	NR	820	1	NR	950	0	NR
435	108	NR	565	294	NR	695	29	NR	825	1	NR	955	0	NR
440	186	NR	570	296	NR	700	25	NR	830	0	NR	960	0	NR
445	323	NR	575	298	NR	705	21	NR	835	0	NR	965	0	NR
450	403	NR	580	299	NR	710	18	NR	840	0	NR	970	0	NR
455	293	NR	585	298	NR	715	15	NR	845	0	NR	975	0	NR
460	214	NR	590	296	NR	720	13	NR	850	0	NR	980	0	NR
465	180	NR	595	288	NR	725	11	NR	855	0	NR	985	0	NR
470	132	NR	600	286	NR	730	9	NR	860	0	NR	990	0	NR
475	109	NR	605	282	NR	735	8	NR	865	0	NR	995	0	NR
480	110	NR	610	311	NR	740	7	NR	870	0	NR	1000	0	NR
485	121	NR	615	334	NR	745	6	NR	875	0	NR			

REPORT NUMBER: SP1-2506-472-7

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 3.64

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	141	NR	620	276	NR	750	5	NR	880	0	NR
365	0	NR	495	167	NR	625	279	NR	755	4	NR	885	0	NR
370	0	NR	500	193	NR	630	1000	NR	760	4	NR	890	0	NR
375	0	NR	505	215	NR	635	628	NR	765	3	NR	895	0	NR
380	0	NR	510	230	NR	640	164	NR	770	3	NR	900	0	NR
385	0	NR	515	243	NR	645	161	NR	775	2	NR	905	0	NR
390	1	NR	520	251	NR	650	137	NR	780	2	NR	910	0	NR
395	2	NR	525	256	NR	655	111	NR	785	2	NR	915	0	NR
400	3	NR	530	262	NR	660	92	NR	790	1	NR	920	0	NR
405	4	NR	535	267	NR	665	76	NR	795	1	NR	925	0	NR
410	6	NR	540	271	NR	670	71	NR	800	1	NR	930	0	NR
415	11	NR	545	276	NR	675	56	NR	805	1	NR	935	0	NR
420	20	NR	550	280	NR	680	47	NR	810	1	NR	940	0	NR
425	37	NR	555	285	NR	685	40	NR	815	1	NR	945	0	NR
430	63	NR	560	290	NR	690	34	NR	820	1	NR	950	0	NR
435	108	NR	565	294	NR	695	29	NR	825	1	NR	955	0	NR
440	186	NR	570	296	NR	700	25	NR	830	0	NR	960	0	NR
445	323	NR	575	298	NR	705	21	NR	835	0	NR	965	0	NR
450	403	NR	580	299	NR	710	18	NR	840	0	NR	970	0	NR
455	293	NR	585	298	NR	715	15	NR	845	0	NR	975	0	NR
460	214	NR	590	296	NR	720	13	NR	850	0	NR	980	0	NR
465	180	NR	595	288	NR	725	11	NR	855	0	NR	985	0	NR
470	132	NR	600	286	NR	730	9	NR	860	0	NR	990	0	NR
475	109	NR	605	282	NR	735	8	NR	865	0	NR	995	0	NR
480	110	NR	610	311	NR	740	7	NR	870	0	NR	1000	0	NR
485	121	NR	615	334	NR	745	6	NR	875	0	NR			

**Summary**

$R_f = 90.7$   
 $R_g = 101$   
 $CIE R_a = 93.4$   
 $R_9 = 66.4$



**Color Vector Graphics**

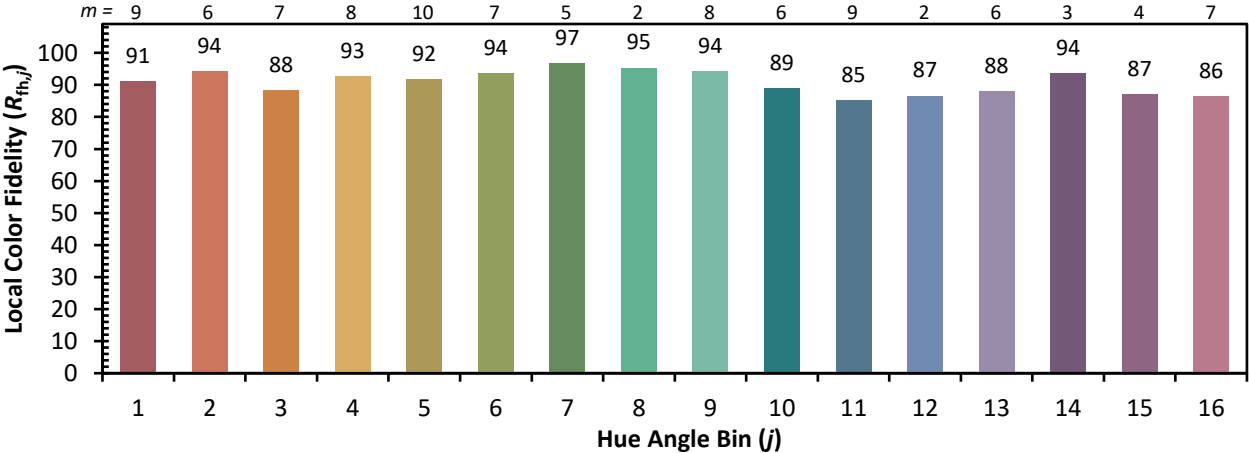


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

CES01 = 86	CES26 = 90	CES51 = 99	CES76 = 83
CES02 = 62	CES27 = 93	CES52 = 97	CES77 = 87
CES03 = 31	CES28 = 94	CES53 = 95	CES78 = 79
CES04 = 69	CES29 = 91	CES54 = 96	CES79 = 94
CES05 = 49	CES30 = 98	CES55 = 95	CES80 = 91
CES06 = 50	CES31 = 92	CES56 = 95	CES81 = 80
CES07 = 42	CES32 = 84	CES57 = 94	CES82 = 96
CES08 = 41	CES33 = 95	CES58 = 95	CES83 = 95
CES09 = 29	CES34 = 90	CES59 = 98	CES84 = 93
CES10 = 74	CES35 = 94	CES60 = 93	CES85 = 82
CES11 = 57	CES36 = 84	CES61 = 93	CES86 = 84
CES12 = 63	CES37 = 92	CES62 = 90	CES87 = 90
CES13 = 43	CES38 = 93	CES63 = 92	CES88 = 97
CES14 = 74	CES39 = 98	CES64 = 91	CES89 = 84
CES15 = 71	CES40 = 96	CES65 = 88	CES90 = 99
CES16 = 47	CES41 = 98	CES66 = 88	CES91 = 74
CES17 = 49	CES42 = 89	CES67 = 87	CES92 = 78
CES18 = 56	CES43 = 89	CES68 = 87	CES93 = 87
CES19 = 71	CES44 = 99	CES69 = 88	CES94 = 75
CES20 = 66	CES45 = 93	CES70 = 84	CES95 = 83
CES21 = 85	CES46 = 95	CES71 = 80	CES96 = 91
CES22 = 78	CES47 = 92	CES72 = 93	CES97 = 93
CES23 = 91	CES48 = 96	CES73 = 78	CES98 = 93
CES24 = 90	CES49 = 93	CES74 = 92	CES99 = 94
CES25 = 71	CES50 = 99	CES75 = 81	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)