

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: P1431707

Luminaire Tested: EHBR1-24-UNV-A1-L840

Issue Date: 3/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1431707
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: EHBR1-24-UNV-A1-L840
Description: Elevate Round Highbay at, 24000 lumens, 4000K 80CRI LEDs with A lens
Light Source: -
Ballast/Driver: -

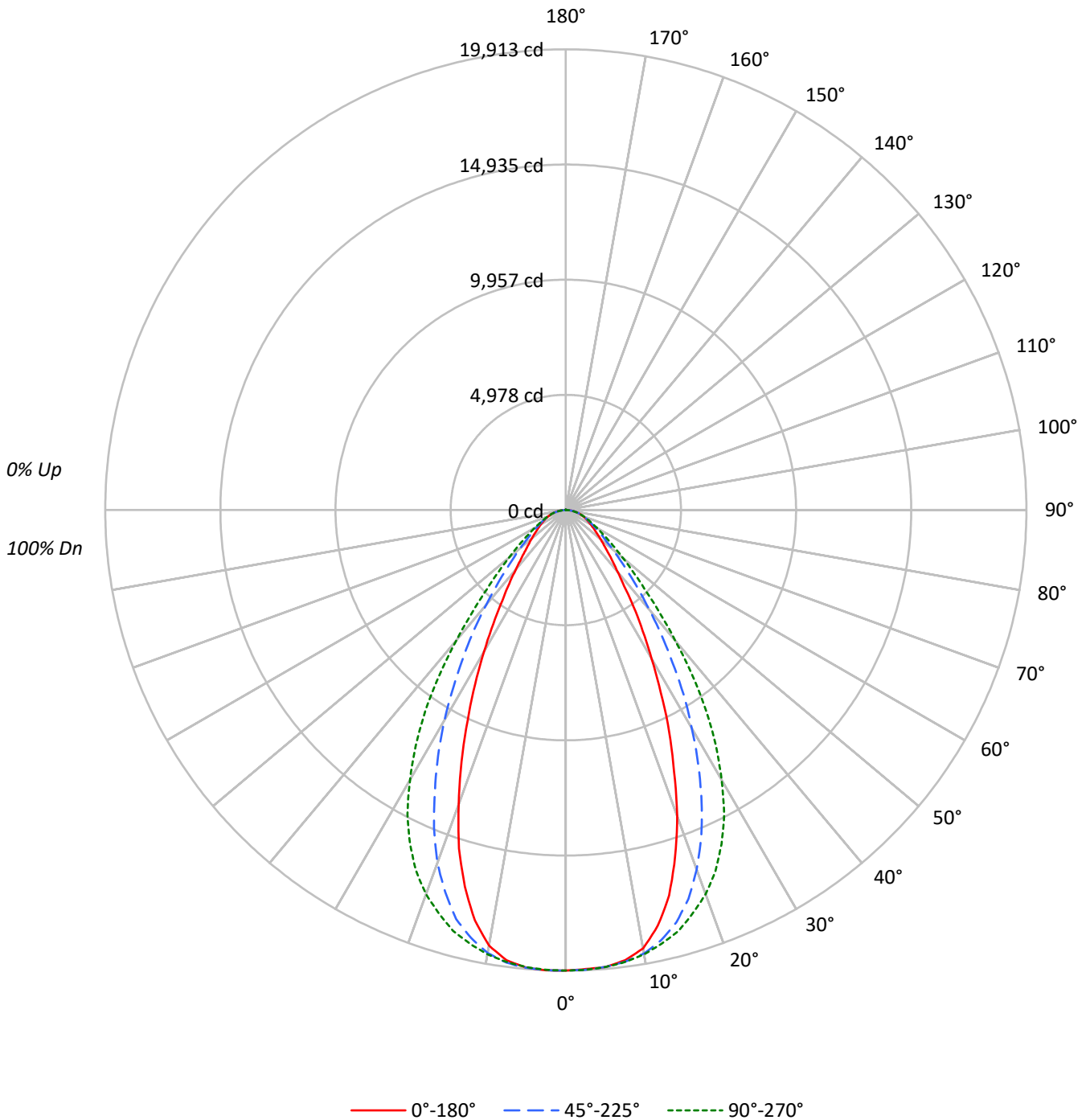
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24728.0 lumens
Efficiency: N/A
Efficacy: 192.7 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): 128.3
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: P1431707
CATALOG NUMBER: EHBR1-24-UNV-A1-L840

Luminous Intensity Polar Plot





TEST NUMBER: P1431707
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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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	100	
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	92	92	90	
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	82	80	
3	98	90	83	78	95	88	82	78	85	81	77	83	79	75	80	77	74	74	72	
4	91	82	75	70	89	81	75	70	79	73	69	77	72	68	75	71	67	67	65	
5	86	76	69	63	84	75	68	63	73	67	62	71	66	62	69	65	61	61	60	
6	81	70	63	58	79	69	62	58	68	62	57	66	61	57	65	60	56	56	55	
7	76	65	58	53	75	64	58	53	63	57	52	62	56	52	60	56	52	52	50	
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	48	46	
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	45	43	
10	64	53	47	42	63	53	46	42	52	46	42	51	46	42	50	45	42	42	40	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	93474	93474	93474	93474	93474
5°	93462	93448	93452	93617	93560
10°	91751	92821	92968	92706	91151
15°	83857	89708	91555	88989	81931
20°	70370	82648	88294	81092	67630
25°	54825	71992	82516	69364	51985
30°	40283	59098	73064	56856	38235
35°	29292	45951	60575	43972	27380
40°	21281	34272	45080	32825	20625
45°	16959	25356	31840	24257	16371
50°	14257	19304	23352	18668	14041
55°	12653	15490	17971	15230	12482
60°	11645	13195	14613	13113	11727
65°	11187	11956	12614	11993	11294
70°	11037	11300	11649	11362	11145
75°	10923	10854	10923	10885	11028
80°	10982	10193	9966	10350	10982
85°	9909	8400	8314	8535	10200

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 33360 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1879.7	7.6
10°-20°	5052.0	20.4
20°-30°	6143.1	24.8
30°-40°	5004.0	20.2
40°-50°	3004.4	12.1
50°-60°	1729.1	7.0
60°-70°	1082.1	4.4
70°-80°	637.3	2.6
80°-90°	186.4	0.8
90°-100°	0.1	0.0
100°-110°	0.1	0.0
110°-120°	0.1	0.0
120°-130°	0.3	0.0
130°-140°	1.3	0.0
140°-150°	2.3	0.0
150°-160°	2.5	0.0
160°-170°	2.3	0.0
170°-180°	1.0	0.0
0°-30°	13074.8	52.9
0°-40°	18078.8	73.1
0°-60°	22812.3	92.3
0°-90°	24718.1	100.0
90°-120°	0.3	0.0
90°-150°	4.2	0.0
90°-180°	10.0	0.0
0°-180°	24728.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	19905	19905	19905	19905	19905	
5°	19826	19823	19824	19859	19847	1874
15°	17248	18452	18832	18304	16852	4745
25°	10581	13894	15925	13387	10033	4821
35°	5110	8015	10566	7670	4776	3233
45°	2554	3818	4794	3652	2465	2014
55°	1545	1892	2195	1860	1525	1397
65°	1007	1076	1135	1079	1016	1001
75°	602	598	602	600	608	638
85°	184	156	154	158	189	196
90°	1	0	0	0	0	9
95°	1	0	0	0	0	1
105°	1	0	0	0	1	1
115°	1	0	0	0	1	1
125°	1	0	0	0	1	1
135°	2	2	2	2	2	2
145°	4	3	3	4	4	3
155°	6	5	4	5	7	3
165°	10	8	7	8	10	3
175°	12	11	9	11	12	1
180°	11	11	11	11	11	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	19904.7	19904.7	19904.7	19904.7	19904.7	19904.7	19904.7	19904.7	19904.7
2.5°	19861.0	19878.9	19886.4	19890.6	19895.1	19907.7	19913.1	19904.3	19911.8
5°	19826.4	19827.6	19823.4	19842.2	19824.3	19836.8	19859.3	19850.5	19847.2
7.5°	19624.6	19666.3	19690.9	19697.1	19700.5	19715.9	19731.7	19642.1	19628.7
10°	19241.0	19310.7	19465.3	19509.5	19496.2	19521.2	19441.1	19206.8	19115.1
12.5°	18400.2	18644.9	19046.8	19225.6	19193.1	19215.2	18942.5	18448.1	18163.8
15°	17248.3	17607.2	18451.8	18804.5	18831.6	18804.5	18303.8	17340.4	16852.2
17.5°	15717.0	16379.9	17623.5	18308.0	18268.8	18281.8	17331.2	15907.1	15348.5
20°	14081.1	14787.7	16537.9	17679.8	17667.7	17595.1	16226.5	14348.3	13532.9
22.5°	12230.9	13142.3	15293.9	16907.2	16902.7	16781.8	14881.1	12646.1	11768.2
25°	10580.8	11474.7	13893.9	15960.9	15925.0	15787.5	13386.6	10948.1	10032.6
27.5°	8874.9	9804.2	12399.3	14851.9	14827.3	14677.3	11957.8	9361.0	8489.7
30°	7428.7	8278.3	10898.5	13631.7	13474.1	13457.0	10485.0	7891.4	7051.0
32.5°	6189.7	6918.0	9483.6	12355.6	12076.7	12156.3	9017.1	6662.4	5829.5
35°	5109.5	5751.1	8015.3	10879.8	10566.2	10669.2	7670.1	5466.8	4776.0
37.5°	4146.9	4763.9	6770.8	9444.4	8964.9	9159.2	6485.2	4565.4	4011.8
40°	3471.5	3960.9	5590.6	7869.3	7353.6	7670.1	5354.6	3807.9	3364.4
42.5°	2991.2	3310.6	4614.2	6365.6	5970.0	6194.3	4413.3	3183.4	2851.6
45°	2553.5	2808.2	3817.9	5023.2	4794.3	5002.3	3652.4	2714.4	2465.1
47.5°	2230.4	2426.8	3143.0	4056.4	3914.2	3980.1	3050.4	2368.8	2166.2
50°	1951.5	2103.2	2642.3	3273.9	3196.3	3236.8	2555.2	2061.1	1921.9
52.5°	1734.7	1846.0	2216.2	2690.7	2652.3	2658.6	2177.5	1813.1	1712.2
55°	1545.4	1623.0	1891.9	2204.1	2195.0	2196.6	1860.2	1606.7	1524.6
57.5°	1379.9	1444.1	1625.9	1851.4	1838.1	1841.0	1610.9	1427.0	1374.1
60°	1239.9	1282.8	1404.9	1564.6	1555.9	1552.1	1396.2	1266.9	1248.6
62.5°	1115.6	1143.1	1227.8	1341.2	1324.5	1328.2	1227.3	1144.4	1117.3
65°	1006.8	1016.4	1076.0	1146.0	1135.2	1144.4	1079.3	1022.6	1016.4
67.5°	900.5	910.1	945.1	992.2	979.7	987.2	945.9	912.6	907.2
70°	803.8	803.4	823.0	848.4	848.4	849.6	827.5	807.5	811.7
72.5°	703.7	701.2	707.1	724.1	719.6	735.4	712.1	705.8	706.6
75°	602.0	594.9	598.2	607.0	602.0	610.3	599.9	607.8	607.8
77.5°	506.1	492.8	488.6	489.9	480.7	493.2	495.7	501.1	513.6
80°	406.1	387.3	376.9	376.5	368.5	376.5	382.7	394.0	406.1
82.5°	301.4	285.2	267.6	264.3	259.3	263.9	272.2	285.6	305.2
85°	183.9	166.8	155.9	150.1	154.3	154.3	158.4	177.2	189.3
87.5°	66.3	57.9	47.5	47.9	49.2	50.9	52.9	66.7	73.0
90°	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
92.5°	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
95°	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
97.5°	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
100°	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
102.5°	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
105°	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
107.5°	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
110°	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
115°	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
117.5°	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
120°	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.8
122.5°	1.3	0.4	0.0	0.0	0.0	0.0	0.0	0.4	1.3
125°	1.3	0.4	0.0	0.0	0.0	0.0	0.4	0.4	1.3
127.5°	1.3	0.4	0.0	0.0	0.0	0.0	0.4	0.8	1.3
130°	1.3	0.8	0.4	0.0	0.4	0.4	0.8	0.8	1.3
132.5°	1.7	1.3	1.3	0.8	0.8	1.3	1.3	1.7	1.7
135°	2.1	1.7	1.7	1.3	1.7	1.7	1.7	1.7	2.1
137.5°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.5
140°	2.9	2.5	2.5	2.5	2.5	2.5	2.5	2.9	2.9
142.5°	3.3	3.3	2.9	2.9	2.9	3.3	3.3	3.3	3.8
145°	3.8	3.8	3.3	3.3	3.3	3.8	3.8	4.2	4.2
147.5°	5.0	4.6	3.8	3.8	3.8	3.8	4.2	4.6	5.0
150°	5.4	5.0	4.2	4.2	4.2	4.2	4.6	5.4	5.8
152.5°	5.8	5.4	4.6	4.2	4.2	4.2	5.0	5.4	6.3
155°	6.3	5.8	5.0	4.2	4.2	4.6	5.4	6.3	6.7
157.5°	7.5	6.7	5.8	5.0	5.0	5.4	6.3	7.1	7.5
160°	8.3	7.5	6.7	5.8	5.8	6.3	7.1	7.9	8.3
162.5°	9.2	8.3	7.1	6.7	6.3	6.7	7.5	8.8	9.2
165°	9.6	8.8	7.9	7.1	7.1	7.1	8.3	9.2	9.6
167.5°	10.0	9.6	8.3	7.5	7.5	7.5	8.8	9.6	10.0
170°	10.4	10.0	8.8	7.9	7.5	7.9	9.2	10.0	10.4
172.5°	11.3	10.8	9.6	8.8	8.3	8.8	10.0	10.8	11.3
175°	12.5	11.7	10.8	9.6	9.2	9.6	10.8	11.7	12.5
177.5°	12.9	12.1	11.3	10.0	9.6	10.0	11.3	12.1	12.9
180°	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3



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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	18.15	19.42	18.52	19.73	20.05	19.13	20.40	19.50	20.71	21.03
	3H	19.72	20.84	20.10	21.17	21.54	20.47	21.60	20.86	21.93	22.30
	4H	20.39	21.44	20.79	21.79	22.17	21.03	22.08	21.44	22.43	22.82
	6H	20.94	21.91	21.36	22.28	22.67	21.46	22.43	21.88	22.80	23.20
	8H	21.14	22.05	21.57	22.45	22.85	21.60	22.52	22.03	22.91	23.31
	12H	21.27	22.14	21.70	22.53	22.96	21.68	22.55	22.11	22.94	23.37
4H	2H	18.72	19.77	19.13	20.12	20.51	19.49	20.54	19.90	20.89	21.28
	3H	20.51	21.38	20.93	21.78	22.19	21.08	21.95	21.50	22.35	22.76
	4H	21.31	22.08	21.74	22.50	22.95	21.78	22.55	22.22	22.97	23.42
	6H	21.99	22.66	22.46	23.11	23.58	22.35	23.02	22.81	23.47	23.93
	8H	22.24	22.86	22.71	23.31	23.79	22.53	23.16	23.01	23.61	24.08
	12H	22.41	22.96	22.90	23.45	23.92	22.65	23.20	23.14	23.69	24.16
8H	4H	21.59	22.21	22.06	22.66	23.13	22.01	22.63	22.48	23.08	23.56
	6H	22.41	22.92	22.91	23.41	23.90	22.71	23.22	23.22	23.72	24.20
	8H	22.74	23.19	23.26	23.71	24.20	22.97	23.43	23.50	23.95	24.44
	12H	22.99	23.39	23.51	23.88	24.46	23.17	23.57	23.68	24.06	24.64
12H	4H	21.61	22.16	22.09	22.64	23.12	22.03	22.57	22.51	23.06	23.53
	6H	22.45	22.91	22.98	23.43	23.92	22.76	23.21	23.28	23.73	24.22
	8H	22.84	23.24	23.36	23.74	24.31	23.07	23.47	23.59	23.97	24.54

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



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

Report Prepared for

Cooper Lighting Solutions

Metalux

Report Number: SP1-2506-472-1

Test Date: 07/30/2025

Luminaire Tested: EHBR-60-L840-N

Data in this report applies to families of products including EHBR-60-L840-N

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2506-472-1
 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-L840-N**
 Description: Elevate Round Highbay at, 60000 lumens, 4000K 80CRI LEDs with N lens

Spectral Parameters

CCT (K): 3898
 CIE u': 0.2263
 CIE v': 0.5052
 Duv: 0.0013
 CIE x: 0.3861
 CIE y: 0.3831
 CIE z: 0.2308
 Peak Wavelength (nm): 630
 Dominant Wavelength (nm): 578
 Purity: 30.85729
 Rf: 80.7
 Rg: 102.1

CRI (Ra):	82.1		
R1:	84.4	R9:	38.5
R2:	83.5	R10:	58.9
R3:	80.8	R11:	83.6
R4:	83.9	R12:	54.2
R5:	82.1	R13:	82.8
R6:	77.3	R14:	88.2
R7:	86.4	R15:	81.2
R8:	78.3		



Test Conditions
 Stabilization Time: 42M
 Operation Time: 1H 42M
 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



CCT = 3898K
 CIE x = 0.3861
 CIE y = 0.3831
 Duv = 0.0013

Point lies inside the ANSI 4000K 4-step quadrangle

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Photopic Flux vs. Wavelength



Photopic Lumens: NR

λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	60	NR	620	277	NR	750	6	NR	880	0	NR
365	0	NR	495	87	NR	625	278	NR	755	5	NR	885	0	NR
370	0	NR	500	124	NR	630	1000	NR	760	4	NR	890	0	NR
375	0	NR	505	168	NR	635	623	NR	765	4	NR	895	0	NR
380	1	NR	510	209	NR	640	162	NR	770	3	NR	900	0	NR
385	1	NR	515	246	NR	645	158	NR	775	3	NR	905	0	NR
390	2	NR	520	273	NR	650	134	NR	780	2	NR	910	0	NR
395	4	NR	525	292	NR	655	109	NR	785	2	NR	915	0	NR
400	5	NR	530	305	NR	660	91	NR	790	2	NR	920	0	NR
405	7	NR	535	313	NR	665	75	NR	795	2	NR	925	0	NR
410	11	NR	540	319	NR	670	70	NR	800	1	NR	930	0	NR
415	21	NR	545	323	NR	675	56	NR	805	1	NR	935	0	NR
420	42	NR	550	326	NR	680	47	NR	810	1	NR	940	0	NR
425	76	NR	555	330	NR	685	41	NR	815	1	NR	945	0	NR
430	125	NR	560	333	NR	690	35	NR	820	1	NR	950	0	NR
435	193	NR	565	336	NR	695	30	NR	825	1	NR	955	0	NR
440	302	NR	570	336	NR	700	26	NR	830	1	NR	960	0	NR
445	432	NR	575	335	NR	705	22	NR	835	1	NR	965	0	NR
450	380	NR	580	332	NR	710	19	NR	840	0	NR	970	0	NR
455	213	NR	585	326	NR	715	16	NR	845	0	NR	975	0	NR
460	147	NR	590	319	NR	720	14	NR	850	0	NR	980	0	NR
465	104	NR	595	307	NR	725	12	NR	855	0	NR	985	0	NR
470	65	NR	600	299	NR	730	10	NR	860	0	NR	990	0	NR
475	50	NR	605	291	NR	735	9	NR	865	0	NR	995	0	NR
480	46	NR	610	317	NR	740	8	NR	870	0	NR	1000	0	NR
485	47	NR	615	336	NR	745	7	NR	875	0	NR			

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Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.55

λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	60	NR	620	277	NR	750	6	NR	880	0	NR
365	0	NR	495	87	NR	625	278	NR	755	5	NR	885	0	NR
370	0	NR	500	124	NR	630	1000	NR	760	4	NR	890	0	NR
375	0	NR	505	168	NR	635	623	NR	765	4	NR	895	0	NR
380	1	NR	510	209	NR	640	162	NR	770	3	NR	900	0	NR
385	1	NR	515	246	NR	645	158	NR	775	3	NR	905	0	NR
390	2	NR	520	273	NR	650	134	NR	780	2	NR	910	0	NR
395	4	NR	525	292	NR	655	109	NR	785	2	NR	915	0	NR
400	5	NR	530	305	NR	660	91	NR	790	2	NR	920	0	NR
405	7	NR	535	313	NR	665	75	NR	795	2	NR	925	0	NR
410	11	NR	540	319	NR	670	70	NR	800	1	NR	930	0	NR
415	21	NR	545	323	NR	675	56	NR	805	1	NR	935	0	NR
420	42	NR	550	326	NR	680	47	NR	810	1	NR	940	0	NR
425	76	NR	555	330	NR	685	41	NR	815	1	NR	945	0	NR
430	125	NR	560	333	NR	690	35	NR	820	1	NR	950	0	NR
435	193	NR	565	336	NR	695	30	NR	825	1	NR	955	0	NR
440	302	NR	570	336	NR	700	26	NR	830	1	NR	960	0	NR
445	432	NR	575	335	NR	705	22	NR	835	1	NR	965	0	NR
450	380	NR	580	332	NR	710	19	NR	840	0	NR	970	0	NR
455	213	NR	585	326	NR	715	16	NR	845	0	NR	975	0	NR
460	147	NR	590	319	NR	720	14	NR	850	0	NR	980	0	NR
465	104	NR	595	307	NR	725	12	NR	855	0	NR	985	0	NR
470	65	NR	600	299	NR	730	10	NR	860	0	NR	990	0	NR
475	50	NR	605	291	NR	735	9	NR	865	0	NR	995	0	NR
480	46	NR	610	317	NR	740	8	NR	870	0	NR	1000	0	NR
485	47	NR	615	336	NR	745	7	NR	875	0	NR			

REPORT NUMBER: SP1-2506-472-1

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.99

λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	60	NR	620	277	NR	750	6	NR	880	0	NR
365	0	NR	495	87	NR	625	278	NR	755	5	NR	885	0	NR
370	0	NR	500	124	NR	630	1000	NR	760	4	NR	890	0	NR
375	0	NR	505	168	NR	635	623	NR	765	4	NR	895	0	NR
380	1	NR	510	209	NR	640	162	NR	770	3	NR	900	0	NR
385	1	NR	515	246	NR	645	158	NR	775	3	NR	905	0	NR
390	2	NR	520	273	NR	650	134	NR	780	2	NR	910	0	NR
395	4	NR	525	292	NR	655	109	NR	785	2	NR	915	0	NR
400	5	NR	530	305	NR	660	91	NR	790	2	NR	920	0	NR
405	7	NR	535	313	NR	665	75	NR	795	2	NR	925	0	NR
410	11	NR	540	319	NR	670	70	NR	800	1	NR	930	0	NR
415	21	NR	545	323	NR	675	56	NR	805	1	NR	935	0	NR
420	42	NR	550	326	NR	680	47	NR	810	1	NR	940	0	NR
425	76	NR	555	330	NR	685	41	NR	815	1	NR	945	0	NR
430	125	NR	560	333	NR	690	35	NR	820	1	NR	950	0	NR
435	193	NR	565	336	NR	695	30	NR	825	1	NR	955	0	NR
440	302	NR	570	336	NR	700	26	NR	830	1	NR	960	0	NR
445	432	NR	575	335	NR	705	22	NR	835	1	NR	965	0	NR
450	380	NR	580	332	NR	710	19	NR	840	0	NR	970	0	NR
455	213	NR	585	326	NR	715	16	NR	845	0	NR	975	0	NR
460	147	NR	590	319	NR	720	14	NR	850	0	NR	980	0	NR
465	104	NR	595	307	NR	725	12	NR	855	0	NR	985	0	NR
470	65	NR	600	299	NR	730	10	NR	860	0	NR	990	0	NR
475	50	NR	605	291	NR	735	9	NR	865	0	NR	995	0	NR
480	46	NR	610	317	NR	740	8	NR	870	0	NR	1000	0	NR
485	47	NR	615	336	NR	745	7	NR	875	0	NR			

Summary

$R_f = 80.7$
 $R_g = 102.1$
 CIE $R_a = 82.1$
 $R_9 = 38.5$



Color Vector Graphics



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

CES01 = 85	CES26 = 69	CES51 = 90	CES76 = 58
CES02 = 61	CES27 = 89	CES52 = 90	CES77 = 76
CES03 = 31	CES28 = 83	CES53 = 80	CES78 = 60
CES04 = 69	CES29 = 66	CES54 = 91	CES79 = 85
CES05 = 48	CES30 = 76	CES55 = 89	CES80 = 79
CES06 = 50	CES31 = 69	CES56 = 79	CES81 = 81
CES07 = 41	CES32 = 62	CES57 = 77	CES82 = 91
CES08 = 40	CES33 = 74	CES58 = 79	CES83 = 88
CES09 = 29	CES34 = 72	CES59 = 93	CES84 = 89
CES10 = 74	CES35 = 84	CES60 = 95	CES85 = 84
CES11 = 57	CES36 = 98	CES61 = 92	CES86 = 82
CES12 = 63	CES37 = 77	CES62 = 89	CES87 = 81
CES13 = 43	CES38 = 83	CES63 = 80	CES88 = 86
CES14 = 74	CES39 = 94	CES64 = 80	CES89 = 79
CES15 = 71	CES40 = 88	CES65 = 77	CES90 = 85
CES16 = 47	CES41 = 89	CES66 = 74	CES91 = 83
CES17 = 49	CES42 = 74	CES67 = 72	CES92 = 77
CES18 = 56	CES43 = 73	CES68 = 78	CES93 = 86
CES19 = 71	CES44 = 98	CES69 = 83	CES94 = 69
CES20 = 65	CES45 = 82	CES70 = 69	CES95 = 80
CES21 = 86	CES46 = 82	CES71 = 64	CES96 = 86
CES22 = 78	CES47 = 80	CES72 = 88	CES97 = 83
CES23 = 91	CES48 = 79	CES73 = 60	CES98 = 81
CES24 = 90	CES49 = 80	CES74 = 98	CES99 = 83
CES25 = 71	CES50 = 89	CES75 = 62	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)