

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: STREETWORKS

Report Number: P880116

Luminaire Tested: **MEM2-HSN-VA-80-730-U-CQ**

Issue Date: 10/01/2024



Test Information

Test Method: LM-79-08
Report Number: P880116
Test Lab: INNOVATION CENTER(G3)
Issue Date: 10/01/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: MEM2-HSN-VA-80-730-U-CQ
Description: EPIC MODERN SHORT HOUSING 80W 70CRI 3000K VISUAL COMFORT FIXTURE w/
TYPE V CONCENTRATED DISTRIBUTION OPTIC
Light Source: (1) 3000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

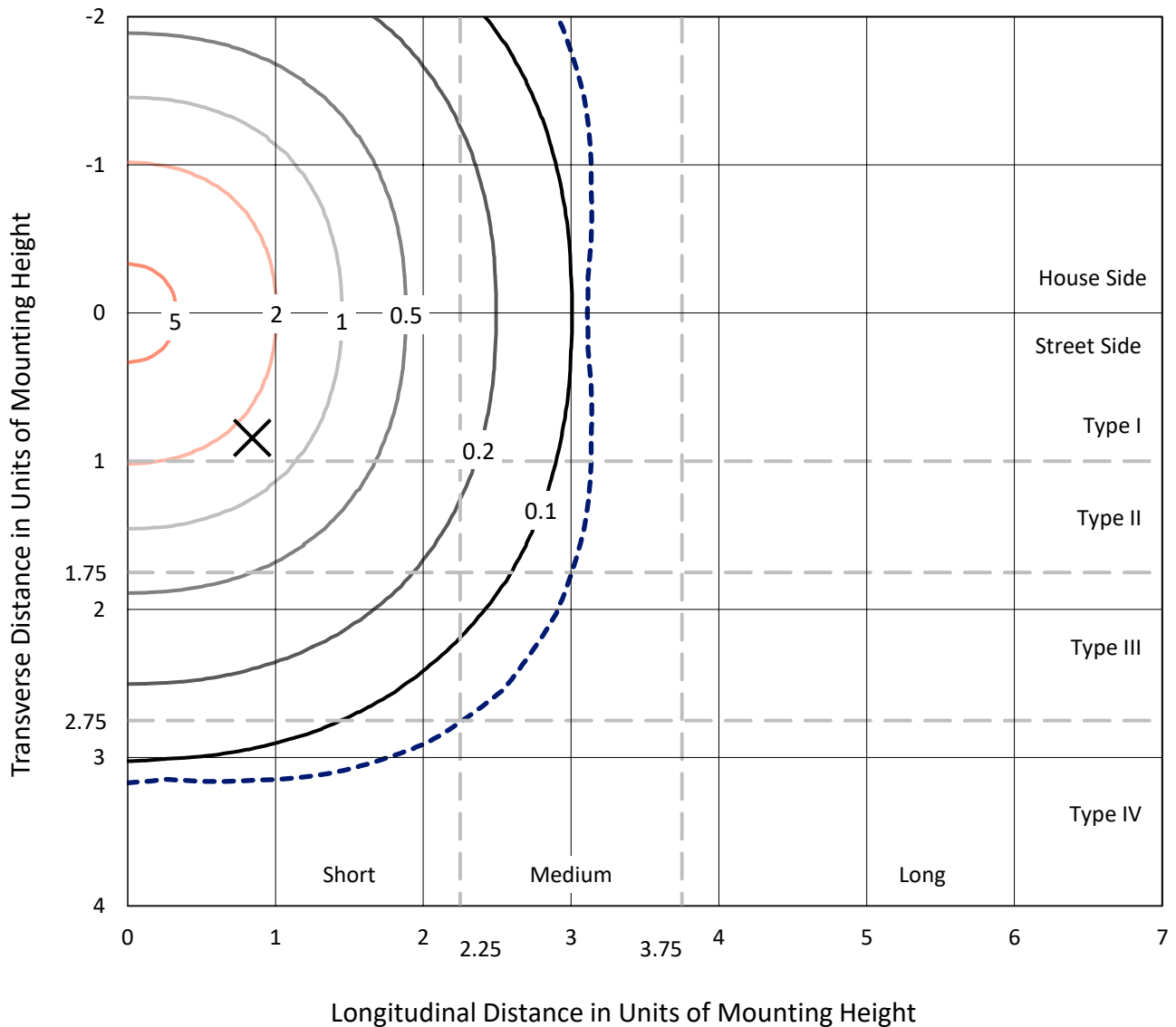
Lumens per Lamp: N/A
Luminaire Lumens: 5947.8 lumens
Efficiency: N/A
Efficacy: 76.3 lumens/watt
Luminous Opening: Circular (Dia: 1.12' x H: 0')
IES Classification: Type V - Short
BUG Rating: B2 - U0 - G1

Input Watts (W): 78
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 6%
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Iso-Footcandle Lines of Horizontal Illumination

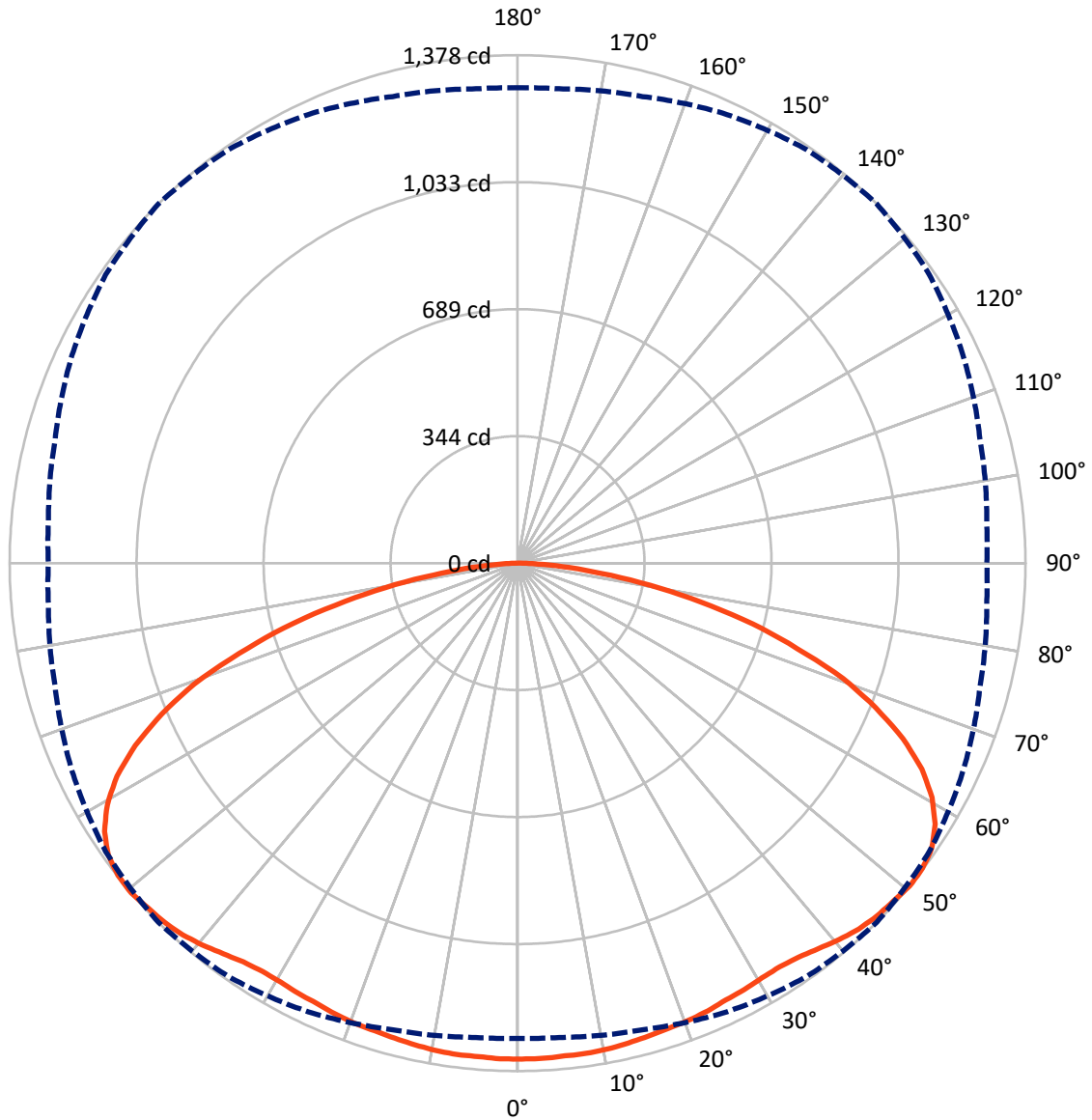
✕ Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 6 fc
 Type V - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 50-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2973.9	0.0	2973.9
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2973.9	0.0	2973.9
	% Fixture	50.0	0.0	50.0
Total	Lumens	5947.8	0.0	5947.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.1	2.2
10°-20°	376.8	6.3
20°-30°	606.2	10.2
30°-40°	818.4	13.8
40°-50°	1028.9	17.3
50°-60°	1156.6	19.4
60°-70°	1053.3	17.7
70°-80°	636.0	10.7
80°-90°	143.4	2.4
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°-90°	5947.8	100.0
0°-180°	5947.8	100.0

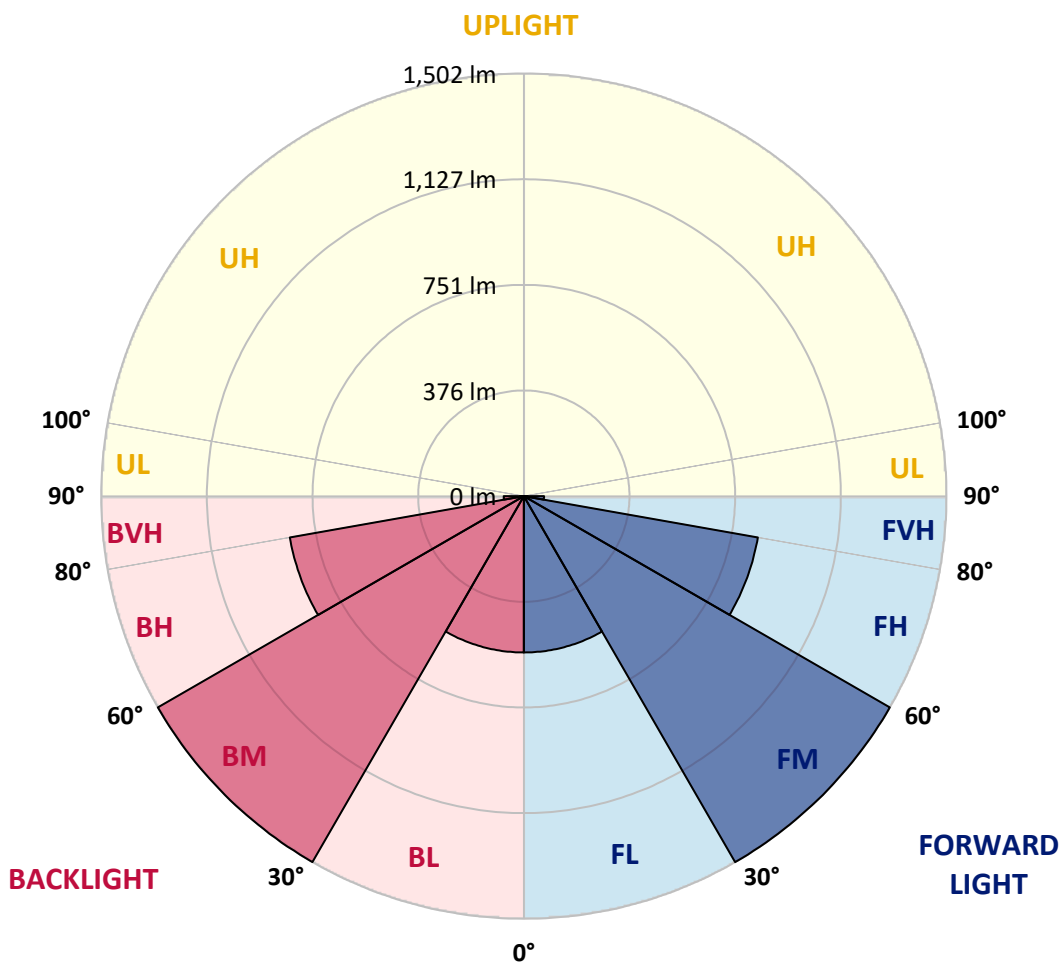


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	555.6	9.3			
FM (30°-60°)	1502.0	25.3			
FH (60°-80°)	844.6	14.2			G1/1800
FVH (80°-90°)	71.7	1.2			G1/100
BL (0°-30°)	555.6	9.3	B2/1000		
BM (30°-60°)	1502.0	25.3	B2/2500		
BH (60°-80°)	844.6	14.2	B2/1000		G1/1800
BVH (80°-90°)	71.7	1.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G1
 Type V Short





REPORT NUMBER: P880116

CATALOG NUMBER: MEM2-HSN-VA-80-730-U-CQ

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1344.9	1344.9	1344.9	1344.9	1344.9	1344.9	1344.9	1344.9	1344.9	1344.9	1344.9
2.5°	1344.9	1344.9	1344.9	1344.9	1344.9	1344.9	1344.9	1344.9	1344.9	1344.9	1344.9
5°	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5	1344.9
7.5°	1340.2	1342.5	1342.5	1340.2	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5
10°	1337.9	1337.9	1340.2	1340.2	1340.2	1340.2	1340.2	1340.2	1340.2	1340.2	1337.9
12.5°	1333.2	1335.5	1335.5	1335.5	1335.5	1335.5	1335.5	1335.5	1335.5	1335.5	1335.5
15°	1330.9	1330.9	1330.9	1330.9	1330.9	1330.9	1330.9	1330.9	1328.5	1328.5	1330.9
17.5°	1323.8	1323.8	1326.2	1326.2	1326.2	1326.2	1326.2	1326.2	1323.8	1323.8	1323.8
20°	1319.2	1319.2	1321.5	1321.5	1321.5	1323.8	1321.5	1319.2	1319.2	1319.2	1319.2
22.5°	1314.5	1314.5	1316.8	1316.8	1319.2	1319.2	1316.8	1316.8	1314.5	1314.5	1314.5
25°	1309.8	1309.8	1309.8	1312.2	1314.5	1312.2	1312.2	1309.8	1307.5	1305.2	1305.2
27.5°	1302.8	1302.8	1302.8	1307.5	1307.5	1309.8	1307.5	1305.2	1300.5	1298.2	1298.2
30°	1295.8	1295.8	1298.2	1302.8	1305.2	1305.2	1302.8	1298.2	1293.5	1291.2	1291.2
32.5°	1288.8	1291.2	1293.5	1300.5	1302.8	1305.2	1300.5	1295.8	1288.8	1284.2	1284.2
35°	1288.8	1288.8	1295.8	1302.8	1309.8	1312.2	1307.5	1298.2	1288.8	1281.8	1281.8
37.5°	1291.2	1293.5	1302.8	1312.2	1321.5	1326.2	1319.2	1307.5	1293.5	1284.2	1284.2
40°	1300.5	1300.5	1312.2	1328.5	1340.2	1342.5	1335.5	1319.2	1300.5	1288.8	1286.5
42.5°	1305.2	1307.5	1319.2	1337.9	1351.9	1356.5	1347.2	1328.5	1305.2	1288.8	1286.5
45°	1305.2	1307.5	1321.5	1342.5	1361.2	1365.9	1356.5	1333.2	1307.5	1291.2	1286.5
47.5°	1298.2	1300.5	1319.2	1344.9	1365.9	1370.5	1358.9	1335.5	1305.2	1286.5	1281.8
50°	1288.8	1291.2	1309.8	1342.5	1368.2	1377.5	1363.5	1333.2	1298.2	1277.2	1272.5
52.5°	1270.1	1272.5	1298.2	1333.2	1365.9	1375.2	1358.9	1326.2	1284.2	1260.8	1256.1
55°	1242.1	1246.8	1272.5	1314.5	1351.9	1363.5	1344.9	1307.5	1263.1	1235.1	1230.5
57.5°	1204.8	1207.1	1237.5	1284.2	1323.8	1335.5	1316.8	1277.2	1228.1	1197.8	1195.4
60°	1151.1	1155.7	1190.8	1237.5	1279.5	1291.2	1272.5	1230.5	1179.1	1146.4	1144.1
62.5°	1085.7	1090.4	1123.1	1176.8	1218.8	1230.5	1211.8	1167.4	1116.0	1081.0	1078.7
65°	1004.0	1008.6	1041.3	1092.7	1137.1	1148.7	1132.4	1085.7	1034.3	1001.6	997.0
67.5°	912.9	917.6	947.9	992.3	1032.0	1048.3	1032.0	992.3	943.3	903.6	898.9
70°	803.2	803.2	833.5	877.9	915.3	936.3	915.3	875.6	826.5	793.8	793.8
72.5°	688.8	684.1	712.1	754.2	784.5	793.8	789.2	754.2	707.5	677.1	672.4
75°	551.0	560.4	581.4	611.7	644.4	658.4	642.1	611.7	579.0	553.4	551.0
77.5°	427.3	434.3	453.0	478.6	497.3	506.7	502.0	478.6	443.6	431.9	427.3
80°	301.2	305.9	322.2	340.9	354.9	364.2	357.2	338.6	319.9	308.2	303.5
82.5°	196.1	193.8	207.8	219.5	231.1	228.8	226.5	212.5	205.5	196.1	193.8
85°	100.4	102.7	102.7	114.4	116.7	121.4	119.1	114.4	102.7	98.1	100.4
87.5°	32.7	32.7	35.0	35.0	39.7	39.7	42.0	37.4	35.0	30.4	30.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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

Streetworks

Report Number: SP1-2407-176-3

Test Date: 09/24/2024

Luminaire Tested: MEM2-HTN-VA-30-730-U-WQ

Data in this report applies to families of products including MEM2-HTN-VA-30-730-U-WQ

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2407-176-3
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 09/27/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: Streetworks
 Catalog Number: **MEM2-HTN-VA-30-730-U-WQ**
 Description: EPIC MODERN VISUAL COMFORT 30W WAVESTREAM WIDE

Spectral Parameters

CCT (K): 2986
 CIE u': 0.2503
 CIE v': 0.5248
 Duv: 0.0022
 CIE x: 0.4413
 CIE y: 0.4112
 CIE z: 0.1476
 Peak Wavelength (nm): 596
 Dominant Wavelength (nm): 582
 Purity: 55.87534
 Rf: 73.2
 Rg: 95.9

CRI (Ra):	71.3		
R1:	68.5	R9:	-25.2
R2:	79.2	R10:	51.0
R3:	88.4	R11:	63.6
R4:	69.4	R12:	39.8
R5:	66.3	R13:	69.9
R6:	70.0	R14:	92.9
R7:	80.1	R15:	61.4
R8:	48.3		



Test Conditions

Stabilization Time: 27M
 Operation Time: 1H 27M
 Sphere Temperature (°C): 25.2

REPORT NUMBER: SP1-2407-176-3

Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085	10/24/2023	10/24/2024
Room Thermometer	IN0046	10/24/2023	10/24/2024

REPORT NUMBER: SP1-2407-176-3

CIE 1931 Chromaticity Diagram



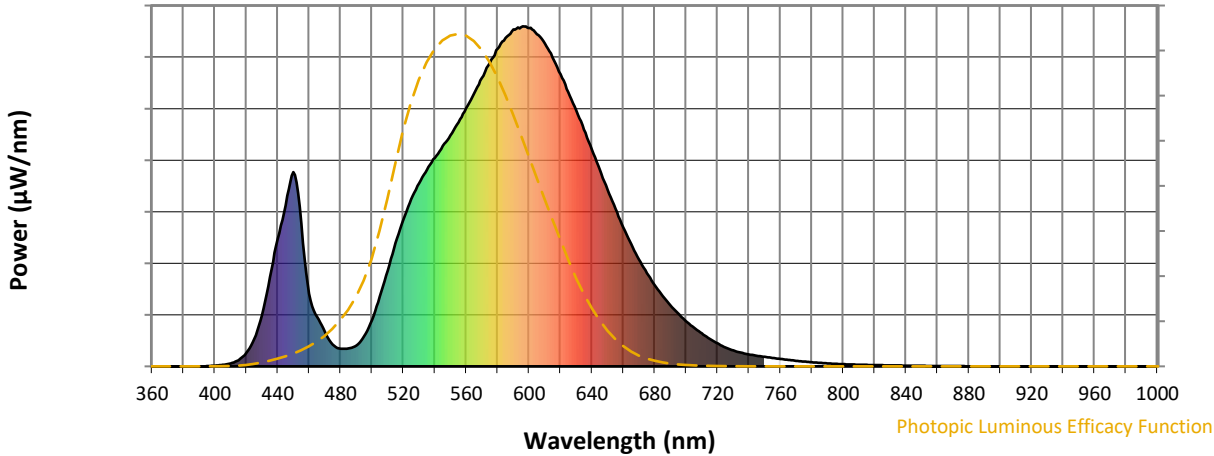
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2407-176-3

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	61	NR	620	859	NR	750	28	NR	880	0	NR
365	0	NR	495	88	NR	625	807	NR	755	25	NR	885	0	NR
370	0	NR	500	137	NR	630	753	NR	760	22	NR	890	0	NR
375	0	NR	505	205	NR	635	697	NR	765	19	NR	895	0	NR
380	0	NR	510	281	NR	640	637	NR	770	16	NR	900	0	NR
385	0	NR	515	363	NR	645	578	NR	775	14	NR	905	0	NR
390	0	NR	520	432	NR	650	520	NR	780	12	NR	910	0	NR
395	1	NR	525	492	NR	655	463	NR	785	10	NR	915	0	NR
400	2	NR	530	539	NR	660	409	NR	790	9	NR	920	0	NR
405	4	NR	535	579	NR	665	359	NR	795	8	NR	925	0	NR
410	9	NR	540	613	NR	670	315	NR	800	6	NR	930	0	NR
415	18	NR	545	648	NR	675	274	NR	805	6	NR	935	0	NR
420	39	NR	550	680	NR	680	239	NR	810	5	NR	940	0	NR
425	81	NR	555	717	NR	685	207	NR	815	4	NR	945	0	NR
430	151	NR	560	759	NR	690	180	NR	820	4	NR	950	0	NR
435	263	NR	565	803	NR	695	155	NR	825	3	NR	955	0	NR
440	375	NR	570	848	NR	700	133	NR	830	3	NR	960	0	NR
445	474	NR	575	892	NR	705	114	NR	835	3	NR	965	0	NR
450	571	NR	580	933	NR	710	97	NR	840	2	NR	970	0	NR
455	421	NR	585	966	NR	715	81	NR	845	2	NR	975	0	NR
460	214	NR	590	991	NR	720	67	NR	850	2	NR	980	0	NR
465	146	NR	595	998	NR	725	55	NR	855	1	NR	985	0	NR
470	101	NR	600	995	NR	730	47	NR	860	1	NR	990	0	NR
475	64	NR	605	977	NR	735	40	NR	865	1	NR	995	0	NR
480	52	NR	610	949	NR	740	35	NR	870	1	NR	1000	0	NR
485	53	NR	615	908	NR	745	31	NR	875	1	NR			

REPORT NUMBER: SP1-2407-176-3

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.15

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	61	NR	620	859	NR	750	28	NR	880	0	NR
365	0	NR	495	88	NR	625	807	NR	755	25	NR	885	0	NR
370	0	NR	500	137	NR	630	753	NR	760	22	NR	890	0	NR
375	0	NR	505	205	NR	635	697	NR	765	19	NR	895	0	NR
380	0	NR	510	281	NR	640	637	NR	770	16	NR	900	0	NR
385	0	NR	515	363	NR	645	578	NR	775	14	NR	905	0	NR
390	0	NR	520	432	NR	650	520	NR	780	12	NR	910	0	NR
395	1	NR	525	492	NR	655	463	NR	785	10	NR	915	0	NR
400	2	NR	530	539	NR	660	409	NR	790	9	NR	920	0	NR
405	4	NR	535	579	NR	665	359	NR	795	8	NR	925	0	NR
410	9	NR	540	613	NR	670	315	NR	800	6	NR	930	0	NR
415	18	NR	545	648	NR	675	274	NR	805	6	NR	935	0	NR
420	39	NR	550	680	NR	680	239	NR	810	5	NR	940	0	NR
425	81	NR	555	717	NR	685	207	NR	815	4	NR	945	0	NR
430	151	NR	560	759	NR	690	180	NR	820	4	NR	950	0	NR
435	263	NR	565	803	NR	695	155	NR	825	3	NR	955	0	NR
440	375	NR	570	848	NR	700	133	NR	830	3	NR	960	0	NR
445	474	NR	575	892	NR	705	114	NR	835	3	NR	965	0	NR
450	571	NR	580	933	NR	710	97	NR	840	2	NR	970	0	NR
455	421	NR	585	966	NR	715	81	NR	845	2	NR	975	0	NR
460	214	NR	590	991	NR	720	67	NR	850	2	NR	980	0	NR
465	146	NR	595	998	NR	725	55	NR	855	1	NR	985	0	NR
470	101	NR	600	995	NR	730	47	NR	860	1	NR	990	0	NR
475	64	NR	605	977	NR	735	40	NR	865	1	NR	995	0	NR
480	52	NR	610	949	NR	740	35	NR	870	1	NR	1000	0	NR
485	53	NR	615	908	NR	745	31	NR	875	1	NR			

REPORT NUMBER: SP1-2407-176-3

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.01

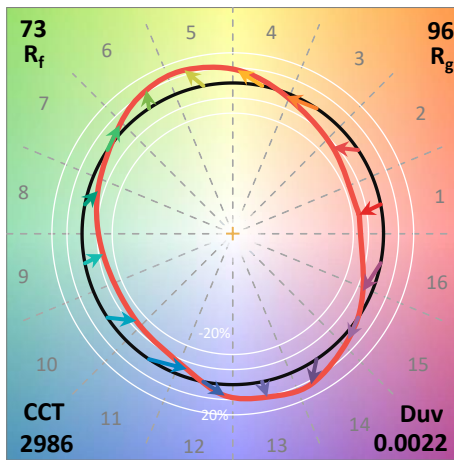
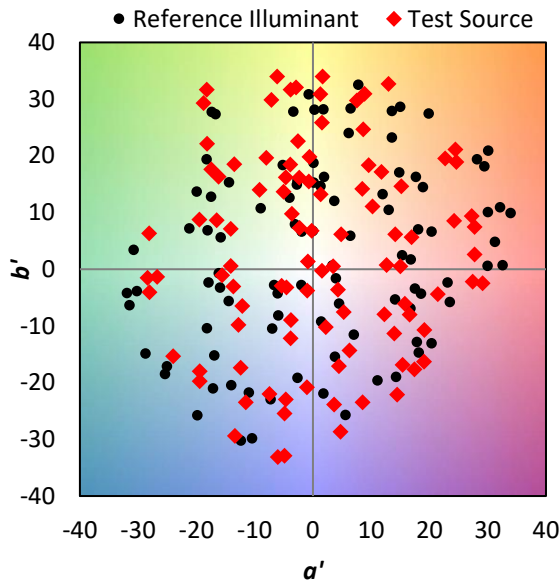
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	61	NR	620	859	NR	750	28	NR	880	0	NR
365	0	NR	495	88	NR	625	807	NR	755	25	NR	885	0	NR
370	0	NR	500	137	NR	630	753	NR	760	22	NR	890	0	NR
375	0	NR	505	205	NR	635	697	NR	765	19	NR	895	0	NR
380	0	NR	510	281	NR	640	637	NR	770	16	NR	900	0	NR
385	0	NR	515	363	NR	645	578	NR	775	14	NR	905	0	NR
390	0	NR	520	432	NR	650	520	NR	780	12	NR	910	0	NR
395	1	NR	525	492	NR	655	463	NR	785	10	NR	915	0	NR
400	2	NR	530	539	NR	660	409	NR	790	9	NR	920	0	NR
405	4	NR	535	579	NR	665	359	NR	795	8	NR	925	0	NR
410	9	NR	540	613	NR	670	315	NR	800	6	NR	930	0	NR
415	18	NR	545	648	NR	675	274	NR	805	6	NR	935	0	NR
420	39	NR	550	680	NR	680	239	NR	810	5	NR	940	0	NR
425	81	NR	555	717	NR	685	207	NR	815	4	NR	945	0	NR
430	151	NR	560	759	NR	690	180	NR	820	4	NR	950	0	NR
435	263	NR	565	803	NR	695	155	NR	825	3	NR	955	0	NR
440	375	NR	570	848	NR	700	133	NR	830	3	NR	960	0	NR
445	474	NR	575	892	NR	705	114	NR	835	3	NR	965	0	NR
450	571	NR	580	933	NR	710	97	NR	840	2	NR	970	0	NR
455	421	NR	585	966	NR	715	81	NR	845	2	NR	975	0	NR
460	214	NR	590	991	NR	720	67	NR	850	2	NR	980	0	NR
465	146	NR	595	998	NR	725	55	NR	855	1	NR	985	0	NR
470	101	NR	600	995	NR	730	47	NR	860	1	NR	990	0	NR
475	64	NR	605	977	NR	735	40	NR	865	1	NR	995	0	NR
480	52	NR	610	949	NR	740	35	NR	870	1	NR	1000	0	NR
485	53	NR	615	908	NR	745	31	NR	875	1	NR			

Summary

$R_f = 73.2$
 $R_g = 95.9$
 $CIE R_a = 71.3$
 $R_9 = -25.2$



Color Vector Graphics

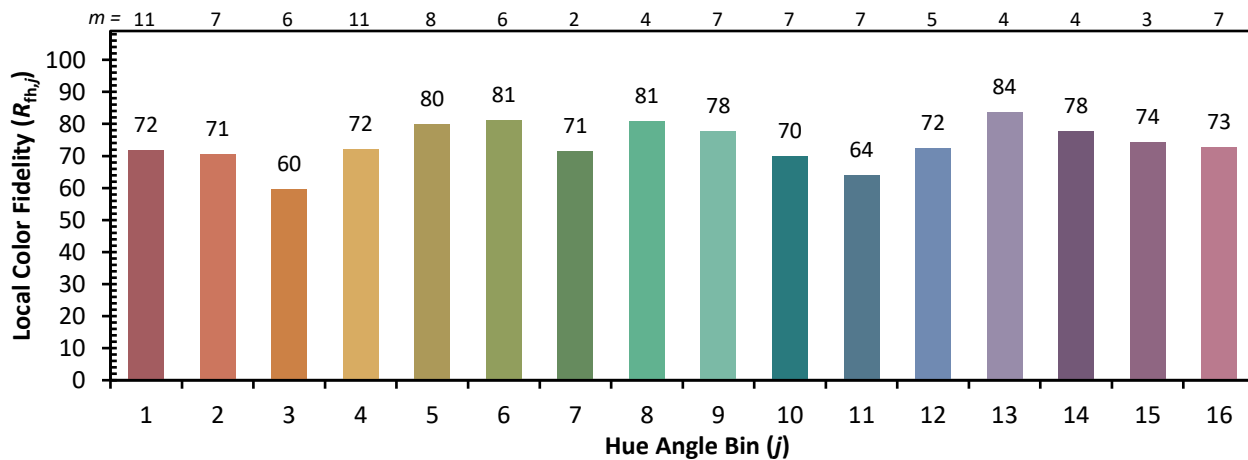


Individual Sample Fidelity Index ($R_{f,i}$)

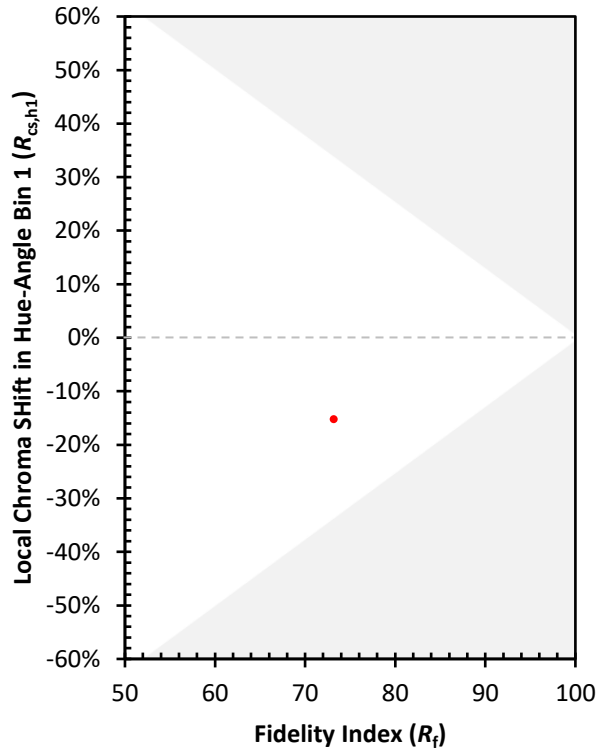
CES01 = 86	CES26 = 61	CES51 = 84	CES76 = 51
CES02 = 62	CES27 = 85	CES52 = 84	CES77 = 74
CES03 = 31	CES28 = 82	CES53 = 73	CES78 = 56
CES04 = 71	CES29 = 59	CES54 = 84	CES79 = 83
CES05 = 49	CES30 = 71	CES55 = 82	CES80 = 81
CES06 = 51	CES31 = 63	CES56 = 70	CES81 = 75
CES07 = 41	CES32 = 57	CES57 = 69	CES82 = 92
CES08 = 40	CES33 = 69	CES58 = 71	CES83 = 88
CES09 = 29	CES34 = 70	CES59 = 85	CES84 = 88
CES10 = 76	CES35 = 84	CES60 = 91	CES85 = 79
CES11 = 59	CES36 = 98	CES61 = 83	CES86 = 67
CES12 = 65	CES37 = 78	CES62 = 87	CES87 = 77
CES13 = 43	CES38 = 79	CES63 = 71	CES88 = 78
CES14 = 74	CES39 = 94	CES64 = 66	CES89 = 68
CES15 = 71	CES40 = 89	CES65 = 64	CES90 = 76
CES16 = 47	CES41 = 87	CES66 = 59	CES91 = 86
CES17 = 50	CES42 = 80	CES67 = 57	CES92 = 63
CES18 = 56	CES43 = 73	CES68 = 66	CES93 = 77
CES19 = 73	CES44 = 99	CES69 = 75	CES94 = 53
CES20 = 66	CES45 = 81	CES70 = 58	CES95 = 70
CES21 = 87	CES46 = 77	CES71 = 54	CES96 = 78
CES22 = 79	CES47 = 77	CES72 = 84	CES97 = 82
CES23 = 92	CES48 = 68	CES73 = 49	CES98 = 75
CES24 = 91	CES49 = 74	CES74 = 98	CES99 = 65
CES25 = 73	CES50 = 83	CES75 = 56	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)