

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: P870246

Luminaire Tested: **MEM2-HSN-SA-90-840-U-T2R**

Issue Date: 09/05/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P870246  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 09/05/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: MEM2-HSN-SA-90-840-U-T2R  
Description: EPIC MODERN SHORT HOUSING DISCRETE LED ARRAYS 90W 80CRI 4000K  
FITURE w/ TYPE II ROADWAY DISTRIBUTION OPTIC  
Light Source: (20) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

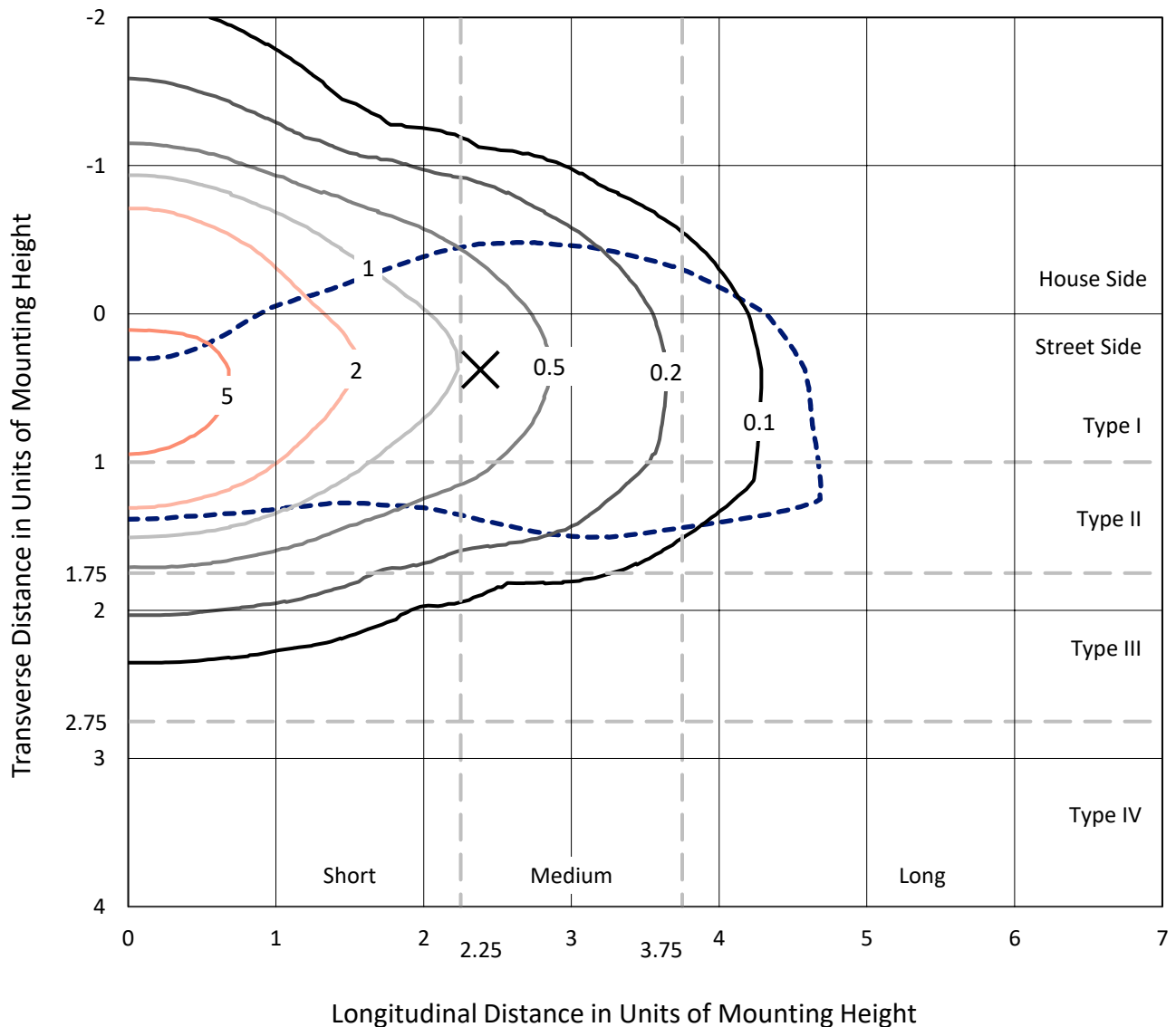
Lumens per Lamp: N/A  
Luminaire Lumens: 12257.2 lumens  
Efficiency: N/A  
Efficacy: 136.2 lumens/watt  
Luminous Opening: Rectangular (W 0.67' x L: 0.33' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B3 - U0 - G3

Input Watts (W): 90  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 6.20%  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

REPORT NUMBER: P870246  
 CATALOG NUMBER: MEM2-HSN-SA-90-840-U-T2R

### Iso-Footcandle Lines of Horizontal Illumination

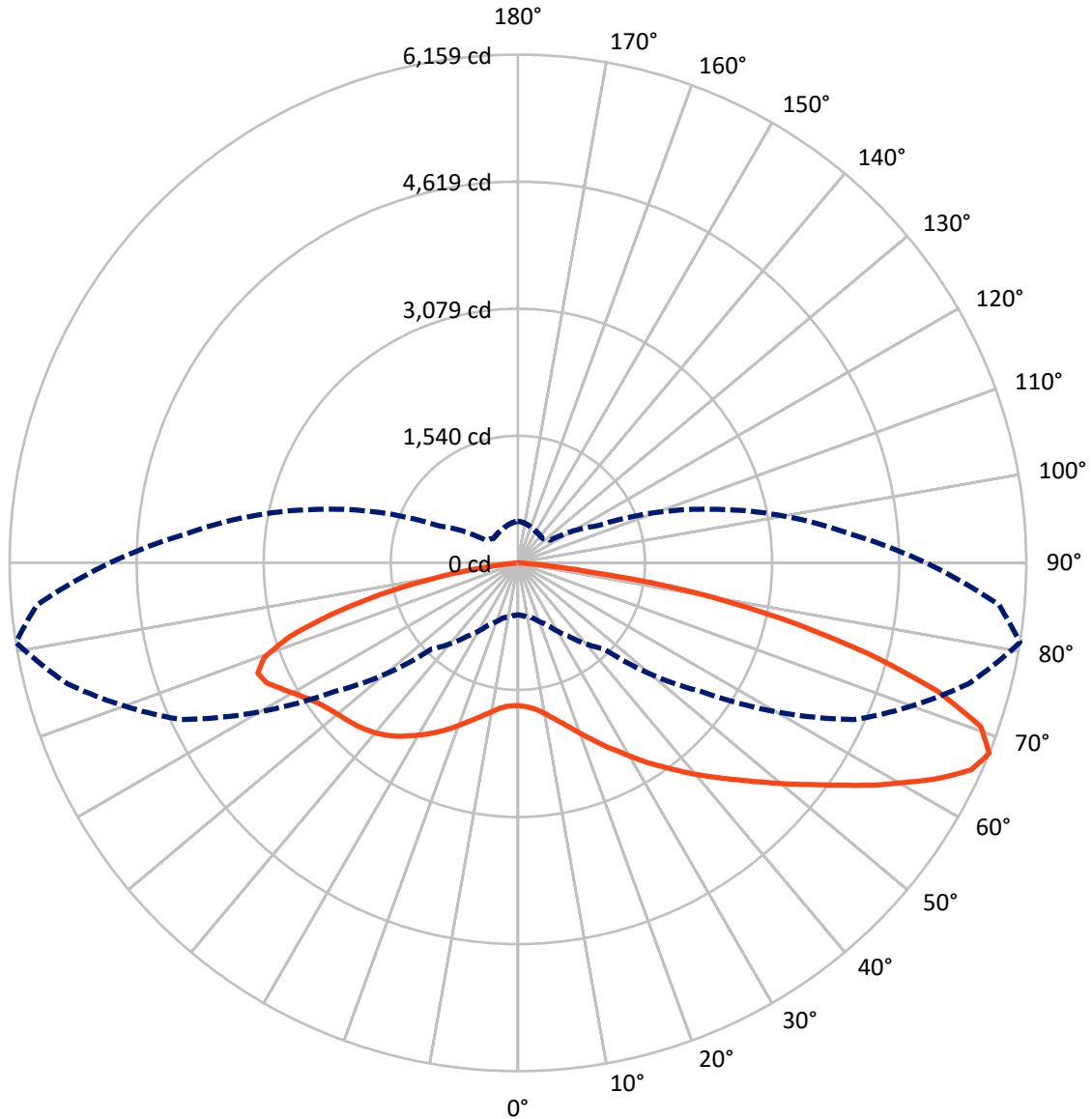
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 7.8 fc  
 Type II - Medium - N/A

REPORT NUMBER: P870246  
CATALOG NUMBER: MEM2-HSN-SA-90-840-U-T2R

### Luminous Intensity Polar Plot



— Vertical Plane Through 81-Deg Lateral      - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P870246  
 CATALOG NUMBER: MEM2-HSN-SA-90-840-U-T2R

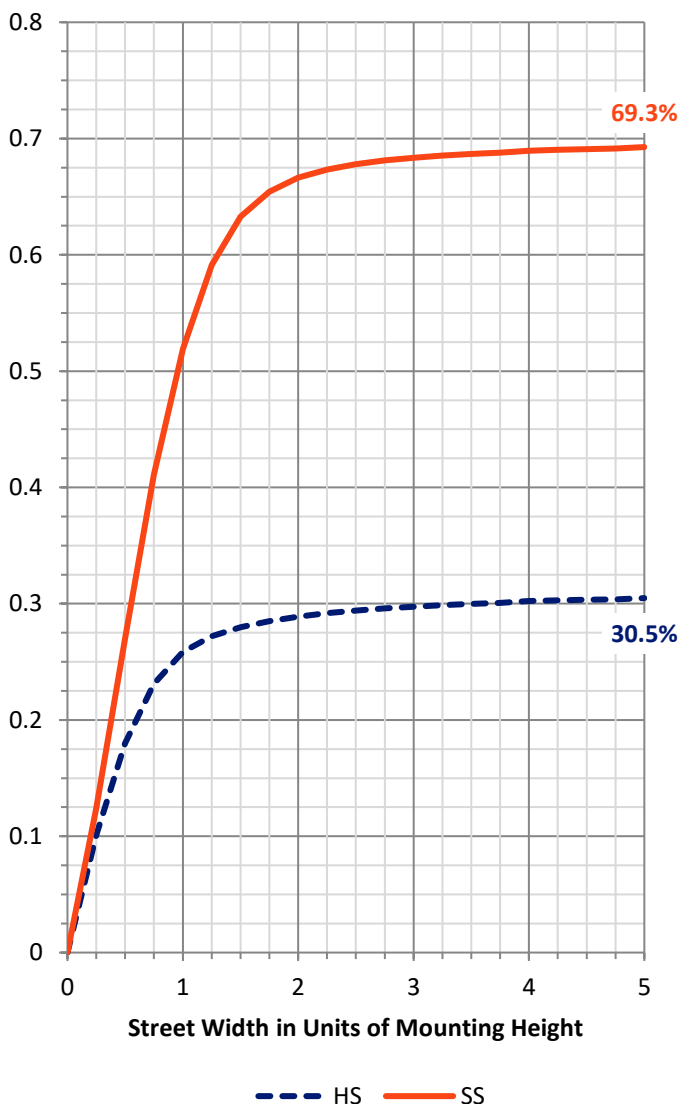
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3755.9	0.0	3755.9
	% Fixture	30.6	0.0	30.6
<b>Street Side</b>	Lumens	8501.3	0.0	8501.3
	% Fixture	69.4	0.0	69.4
<b>Total</b>	Lumens	12257.2	0.0	12257.2
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	176.5	1.4
10°-20°	626.4	5.1
20°-30°	1247.6	10.2
30°-40°	1960.1	16.0
40°-50°	2430.9	19.8
50°-60°	2376.3	19.4
60°-70°	1998.3	16.3
70°-80°	1269.8	10.4
80°-90°	171.4	1.4
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°	12257.2	100.0
0°-180°	12257.2	100.0

**Coefficient of Utilization**



REPORT NUMBER: P870246

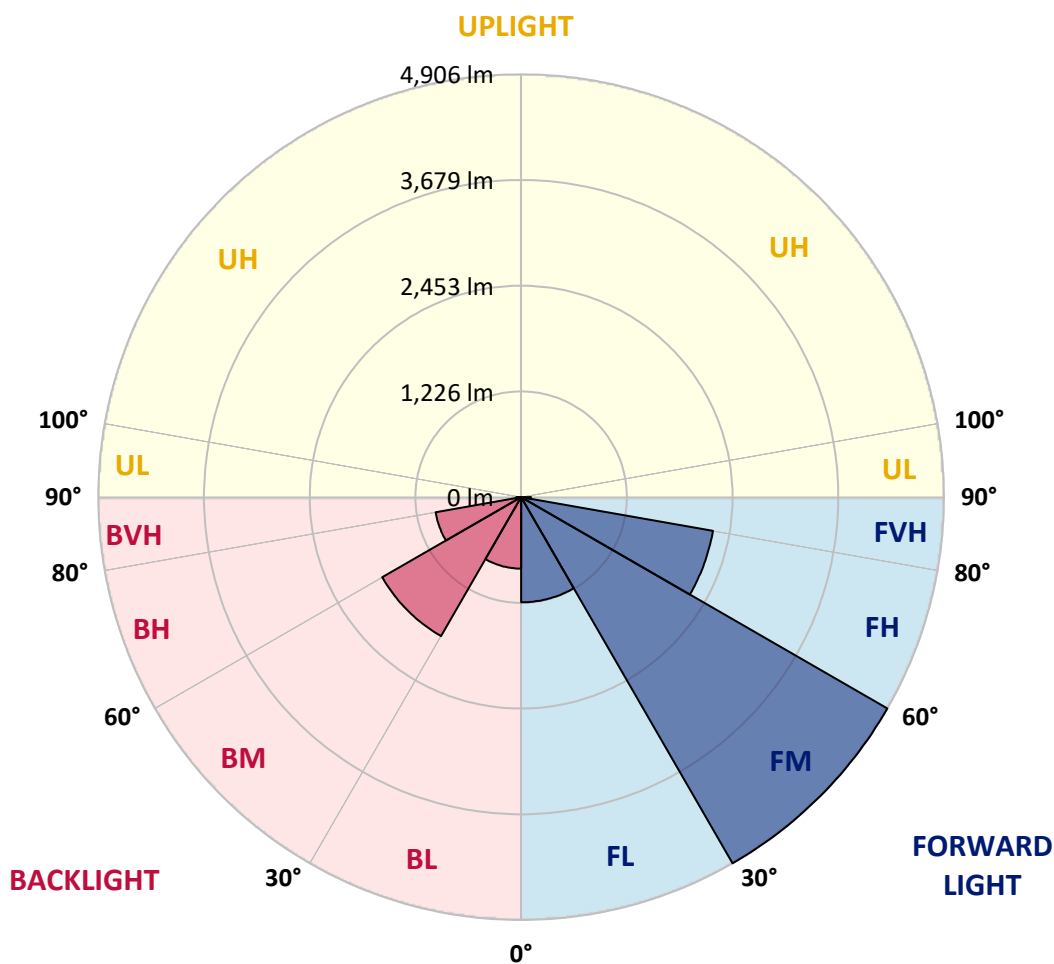
CATALOG NUMBER: MEM2-HSN-SA-90-840-U-T2R

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1220.9	10.0			
FM (30°-60°)	4905.7	40.0			
FH (60°-80°)	2259.9	18.4			G2/5000
FVH (80°-90°)	114.8	0.9			G2/225
BL (0°-30°)	829.6	6.8	B2/1000		
BM (30°-60°)	1861.5	15.2	B2/2500		
BH (60°-80°)	1008.2	8.2	B3/2500		G3/2500
BVH (80°-90°)	56.6	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**

Type II Medium





REPORT NUMBER: P870246  
 CATALOG NUMBER: MEM2-HSN-SA-90-840-U-T2R

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	81°	85°
0°	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5
2.5°	1791.3	1788.8	1788.8	1769.4	1769.4	1764.5	1767.0	1752.4	1745.1	1742.7	1740.2
5°	1920.1	1920.1	1905.5	1893.3	1869.0	1847.2	1827.7	1798.6	1776.7	1767.0	1759.7
7.5°	2114.5	2099.9	2095.1	2058.6	2007.6	1963.8	1924.9	1861.8	1820.4	1805.9	1796.1
10°	2352.7	2333.3	2296.8	2255.5	2189.9	2124.2	2046.5	1961.4	1893.3	1864.2	1852.0
12.5°	2598.2	2571.5	2520.4	2481.5	2396.5	2296.8	2187.4	2070.8	1976.0	1934.7	1912.8
15°	2868.0	2853.4	2792.6	2714.9	2615.2	2474.2	2338.1	2194.7	2073.2	2014.9	1978.4
17.5°	3159.6	3137.8	3072.1	2977.3	2836.4	2668.7	2510.7	2326.0	2185.0	2109.7	2068.3
20°	3446.4	3441.6	3344.4	3254.4	3089.1	2880.1	2676.0	2481.5	2304.1	2216.6	2163.1
22.5°	3767.3	3735.7	3650.6	3524.2	3327.3	3135.3	2894.7	2641.9	2432.9	2330.8	2270.1
25°	4100.2	4097.8	3993.3	3837.7	3606.8	3363.8	3103.7	2824.2	2586.0	2462.1	2381.9
27.5°	4513.4	4481.8	4348.1	4170.7	3903.4	3623.9	3322.5	3013.8	2731.9	2583.6	2486.4
30°	4875.6	4865.8	4715.1	4515.8	4216.9	3883.9	3558.2	3227.7	2904.4	2729.4	2622.5
32.5°	5169.6	5157.5	5028.7	4829.4	4508.6	4163.4	3789.1	3429.4	3077.0	2887.4	2746.5
35°	5415.1	5395.7	5262.0	5062.7	4785.6	4435.6	4037.0	3640.9	3266.6	3035.7	2902.0
37.5°	5512.3	5495.3	5386.0	5220.7	4965.5	4644.7	4260.6	3874.2	3456.2	3203.4	3052.7
40°	5475.9	5466.2	5388.4	5274.2	5079.7	4812.4	4474.5	4117.2	3670.0	3380.8	3201.0
42.5°	5303.3	5303.3	5254.7	5196.4	5099.2	4907.2	4664.1	4350.6	3876.6	3558.2	3341.9
45°	5060.3	5050.6	5033.5	5011.7	4997.1	4924.2	4788.1	4552.3	4105.1	3752.7	3512.1
47.5°	4737.0	4744.3	4732.2	4741.9	4802.6	4848.8	4841.5	4739.5	4338.4	3966.6	3679.8
50°	4229.0	4263.1	4302.0	4416.2	4540.2	4669.0	4788.1	4873.1	4613.1	4209.6	3874.2
52.5°	3599.6	3614.1	3718.6	3988.4	4253.4	4423.5	4649.5	4933.9	4856.1	4462.4	4102.7
55°	2824.2	2851.0	3008.9	3390.5	3862.0	4187.7	4452.7	4907.2	5104.0	4751.6	4370.0
57.5°	2024.6	2041.6	2294.4	2688.1	3303.0	3849.9	4229.0	4800.2	5303.3	5079.7	4644.7
60°	1438.8	1470.4	1633.3	2017.3	2607.9	3383.2	4024.9	4644.7	5488.0	5400.5	5004.4
62.5°	1062.1	1079.1	1193.4	1472.9	1959.0	2746.5	3760.0	4530.4	5609.6	5745.7	5364.1
65°	799.6	806.9	884.7	1076.7	1465.6	2024.6	3341.9	4508.6	5677.6	6039.8	5682.5
67.5°	629.5	641.6	690.3	821.5	1091.3	1472.9	2722.1	4494.0	5653.3	6158.9	5850.2
70°	529.8	532.3	568.7	641.6	816.6	1059.7	2034.3	4275.2	5517.2	5949.8	5694.6
72.5°	459.4	459.4	476.4	534.7	656.2	802.1	1385.4	3752.7	5172.1	5315.5	5155.1
75°	371.9	369.4	398.6	454.5	527.4	617.3	930.9	2841.2	4447.8	4374.9	4243.6
77.5°	323.3	320.8	345.1	393.7	435.1	493.4	636.8	1844.7	3499.9	3281.2	3198.5
80°	277.1	269.8	289.2	335.4	357.3	384.0	439.9	1074.3	2287.1	2151.0	2051.3
82.5°	209.0	192.0	187.1	226.0	240.6	223.6	223.6	376.7	831.2	838.5	775.3
85°	17.0	19.4	24.3	29.2	41.3	46.2	48.6	80.2	124.0	119.1	121.5
87.5°	2.4	2.4	2.4	4.9	4.9	7.3	7.3	7.3	9.7	9.7	9.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P870246

CATALOG NUMBER: MEM2-HSN-SA-90-840-U-T2R

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5
2.5°	1737.8	1732.9	1728.1	1728.1	1728.1	1723.2	1720.8	1720.8	1718.4	1711.1	1708.6
5°	1754.8	1747.5	1740.2	1740.2	1740.2	1737.8	1735.4	1737.8	1735.4	1728.1	1725.6
7.5°	1788.8	1779.1	1769.4	1769.4	1774.3	1771.8	1771.8	1774.3	1771.8	1764.5	1762.1
10°	1837.4	1822.9	1818.0	1818.0	1822.9	1820.4	1818.0	1818.0	1815.6	1803.4	1808.3
12.5°	1890.9	1876.3	1871.5	1873.9	1871.5	1866.6	1869.0	1861.8	1859.3	1839.9	1837.4
15°	1959.0	1942.0	1932.2	1934.7	1927.4	1917.7	1907.9	1903.1	1893.3	1876.3	1871.5
17.5°	2036.7	2010.0	1997.9	1997.9	1983.3	1963.8	1949.3	1934.7	1920.1	1900.6	1895.8
20°	2112.1	2087.8	2068.3	2063.5	2034.3	2002.7	1976.0	1951.7	1934.7	1912.8	1907.9
22.5°	2206.9	2172.9	2146.1	2124.2	2080.5	2029.5	1988.1	1954.1	1929.8	1905.5	1898.2
25°	2306.5	2257.9	2214.2	2172.9	2112.1	2039.2	1980.8	1932.2	1900.6	1873.9	1869.0
27.5°	2406.2	2343.0	2279.8	2214.2	2121.8	2027.0	1944.4	1886.1	1844.7	1810.7	1805.9
30°	2513.1	2435.3	2335.7	2240.9	2119.4	1995.4	1890.9	1808.3	1759.7	1720.8	1715.9
32.5°	2622.5	2525.3	2389.2	2260.4	2107.2	1949.3	1813.1	1725.6	1664.9	1621.1	1609.0
35°	2744.0	2624.9	2437.8	2267.6	2073.2	1881.2	1730.5	1621.1	1550.7	1506.9	1497.2
37.5°	2868.0	2717.3	2469.4	2262.8	2024.6	1801.0	1623.6	1511.8	1429.1	1368.4	1358.6
40°	2994.4	2802.4	2488.8	2238.5	1956.5	1701.3	1523.9	1387.8	1268.7	1212.8	1186.1
42.5°	3111.0	2880.1	2498.5	2204.5	1881.2	1596.8	1392.7	1215.2	1103.4	1042.7	1054.8
45°	3232.5	2953.0	2501.0	2163.1	1781.5	1463.2	1227.4	1062.1	950.3	904.1	899.3
47.5°	3337.1	3013.8	2496.1	2104.8	1669.7	1310.0	1054.8	896.8	814.2	770.5	765.6
50°	3475.6	3081.9	2488.8	2036.7	1523.9	1135.0	894.4	765.6	690.3	656.2	653.8
52.5°	3614.1	3157.2	2484.0	1942.0	1370.8	969.8	748.6	646.5	595.5	578.5	573.6
55°	3796.4	3249.6	2486.4	1832.6	1195.8	799.6	634.4	563.9	537.1	529.8	529.8
57.5°	4005.4	3368.7	2501.0	1711.1	1013.5	661.1	551.7	520.1	517.7	522.6	525.0
60°	4258.2	3526.6	2530.1	1584.7	845.8	559.0	503.1	500.7	508.0	525.0	529.8
62.5°	4542.6	3699.2	2566.6	1419.4	685.4	491.0	476.4	486.1	495.8	515.3	517.7
65°	4792.9	3893.6	2588.5	1261.4	573.6	452.1	459.4	464.2	488.5	515.3	515.3
67.5°	4943.6	4034.6	2505.8	1062.1	478.8	418.0	432.6	447.2	473.9	498.2	503.1
70°	4892.6	3988.4	2223.9	823.9	405.9	386.4	403.5	425.3	452.1	481.2	495.8
72.5°	4537.7	3660.3	1805.9	600.3	352.4	357.3	379.2	408.3	432.6	464.2	483.7
75°	3794.0	3055.1	1302.7	432.6	308.7	328.1	362.1	386.4	403.5	410.8	413.2
77.5°	2880.1	2245.8	887.1	323.3	267.4	294.1	330.5	357.3	362.1	367.0	371.9
80°	1881.2	1429.1	500.7	226.0	204.2	240.6	269.8	298.9	289.2	303.8	308.7
82.5°	794.8	624.6	228.5	111.8	94.8	102.1	109.4	97.2	89.9	89.9	77.8
85°	104.5	80.2	34.0	14.6	12.2	7.3	7.3	7.3	4.9	4.9	4.9
87.5°	9.7	9.7	7.3	7.3	4.9	4.9	2.4	4.9	2.4	2.4	2.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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

Report Prepared for

Cooper Lighting Solutions

Streetworks

Report Number: SP1-2407-157-8

Test Date: 09/05/2024

Luminaire Tested: MEM2-HTN-SA-30-840-U-5WQ

Data in this report applies to families of products including MEM2-HTN-SA-30-840-U-5WQ

**Test Information**

Test Method: LM-79-2019  
 Report Number: SP1-2407-157-8  
 Test Lab: COOPER LIGHTING SOLUTIONS  
 Photometer: SP1 - 76IN SPHERE  
 Measurement Geometry: 4π  
 Issue Date: 09/05/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: Streetworks  
 Catalog Number: **MEM2-HTN-SA-30-840-U-5WQ**  
 Description: Epic Modern Light Square 30W 5WQ Optic

**Spectral Parameters**

CCT (K): 3996  
 CIE u': 0.2245  
 CIE v': 0.5031  
 Duv: 0.0012  
 CIE x: 0.3815  
 CIE y: 0.3799  
 CIE z: 0.2386  
 Peak Wavelength (nm): 449  
 Dominant Wavelength (nm): 578  
 Purity: 28.49233  
 Rf: 82.6  
 Rg: 95.1

CRI (Ra):	80.6		
R1:	78.1	R9:	-5.8
R2:	87.1	R10:	70.3
R3:	94.5	R11:	78.7
R4:	79.7	R12:	60.5
R5:	78.7	R13:	80.2
R6:	82.7	R14:	97.2
R7:	84.3	R15:	70.6
R8:	59.5		



**Test Conditions**

Stabilization Time: 29M  
 Operation Time: 1H 29M  
 Sphere Temperature (°C): 24.3

REPORT NUMBER: SP1-2407-157-8

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: SP1-2407-157-8

**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

REPORT NUMBER: SP1-2407-157-8

**Photopic Flux vs. Wavelength**

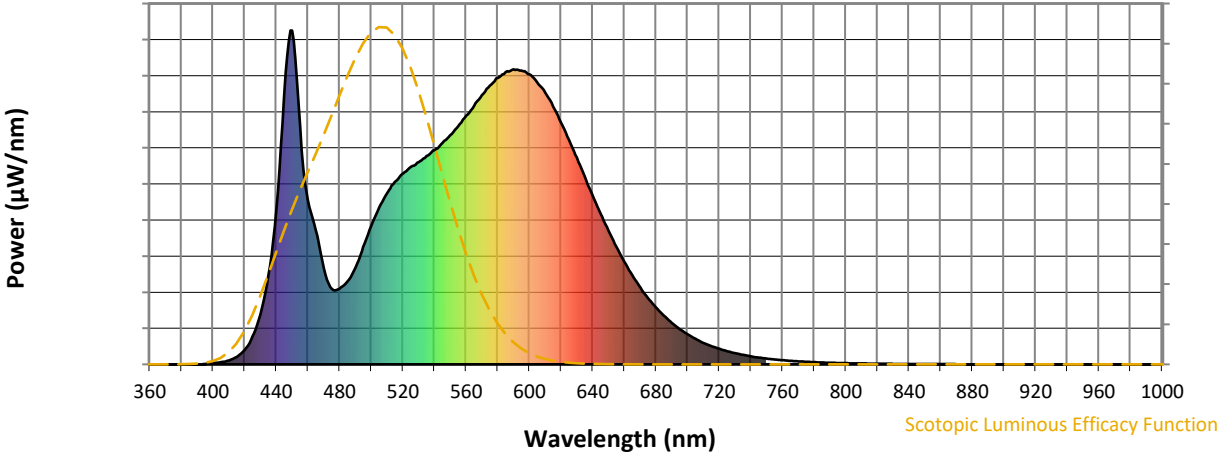


**Photopic Lumens: NR**

$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	289	NR	620	725	NR	750	17	NR	880	0	NR
365	0	NR	495	351	NR	625	673	NR	755	15	NR	885	0	NR
370	0	NR	500	414	NR	630	619	NR	760	13	NR	890	0	NR
375	0	NR	505	470	NR	635	562	NR	765	11	NR	895	0	NR
380	0	NR	510	513	NR	640	506	NR	770	9	NR	900	0	NR
385	0	NR	515	546	NR	645	452	NR	775	8	NR	905	0	NR
390	0	NR	520	571	NR	650	400	NR	780	7	NR	910	0	NR
395	1	NR	525	592	NR	655	352	NR	785	6	NR	915	0	NR
400	3	NR	530	606	NR	660	307	NR	790	5	NR	920	0	NR
405	6	NR	535	624	NR	665	267	NR	795	4	NR	925	0	NR
410	12	NR	540	642	NR	670	231	NR	800	4	NR	930	0	NR
415	22	NR	545	663	NR	675	199	NR	805	3	NR	935	0	NR
420	44	NR	550	686	NR	680	171	NR	810	3	NR	940	0	NR
425	83	NR	555	713	NR	685	146	NR	815	2	NR	945	0	NR
430	150	NR	560	745	NR	690	125	NR	820	2	NR	950	0	NR
435	267	NR	565	774	NR	695	106	NR	825	2	NR	955	0	NR
440	466	NR	570	806	NR	700	90	NR	830	1	NR	960	0	NR
445	804	NR	575	835	NR	705	76	NR	835	1	NR	965	0	NR
450	1000	NR	580	858	NR	710	65	NR	840	1	NR	970	0	NR
455	715	NR	585	875	NR	715	55	NR	845	1	NR	975	0	NR
460	492	NR	590	884	NR	720	47	NR	850	1	NR	980	0	NR
465	402	NR	595	880	NR	725	40	NR	855	1	NR	985	0	NR
470	288	NR	600	868	NR	730	34	NR	860	1	NR	990	0	NR
475	226	NR	605	844	NR	735	28	NR	865	1	NR	995	0	NR
480	227	NR	610	814	NR	740	24	NR	870	0	NR	1000	0	NR
485	248	NR	615	771	NR	745	20	NR	875	0	NR			

REPORT NUMBER: SP1-2407-157-8

Scotopic Flux vs. Wavelength



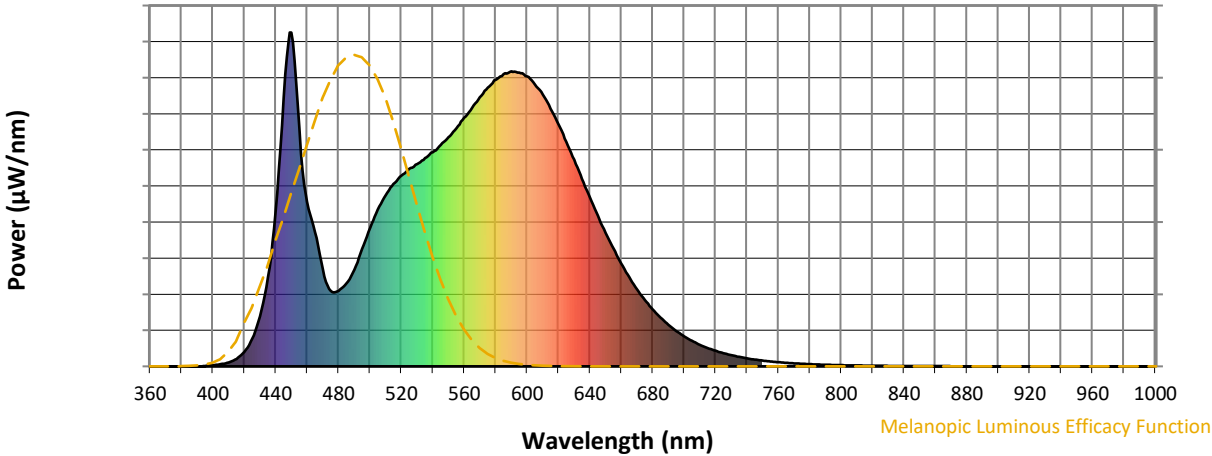
Scotopic Lumens: NR

S/P: 1.66

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	289	NR	620	725	NR	750	17	NR	880	0	NR
365	0	NR	495	351	NR	625	673	NR	755	15	NR	885	0	NR
370	0	NR	500	414	NR	630	619	NR	760	13	NR	890	0	NR
375	0	NR	505	470	NR	635	562	NR	765	11	NR	895	0	NR
380	0	NR	510	513	NR	640	506	NR	770	9	NR	900	0	NR
385	0	NR	515	546	NR	645	452	NR	775	8	NR	905	0	NR
390	0	NR	520	571	NR	650	400	NR	780	7	NR	910	0	NR
395	1	NR	525	592	NR	655	352	NR	785	6	NR	915	0	NR
400	3	NR	530	606	NR	660	307	NR	790	5	NR	920	0	NR
405	6	NR	535	624	NR	665	267	NR	795	4	NR	925	0	NR
410	12	NR	540	642	NR	670	231	NR	800	4	NR	930	0	NR
415	22	NR	545	663	NR	675	199	NR	805	3	NR	935	0	NR
420	44	NR	550	686	NR	680	171	NR	810	3	NR	940	0	NR
425	83	NR	555	713	NR	685	146	NR	815	2	NR	945	0	NR
430	150	NR	560	745	NR	690	125	NR	820	2	NR	950	0	NR
435	267	NR	565	774	NR	695	106	NR	825	2	NR	955	0	NR
440	466	NR	570	806	NR	700	90	NR	830	1	NR	960	0	NR
445	804	NR	575	835	NR	705	76	NR	835	1	NR	965	0	NR
450	1000	NR	580	858	NR	710	65	NR	840	1	NR	970	0	NR
455	715	NR	585	875	NR	715	55	NR	845	1	NR	975	0	NR
460	492	NR	590	884	NR	720	47	NR	850	1	NR	980	0	NR
465	402	NR	595	880	NR	725	40	NR	855	1	NR	985	0	NR
470	288	NR	600	868	NR	730	34	NR	860	1	NR	990	0	NR
475	226	NR	605	844	NR	735	28	NR	865	1	NR	995	0	NR
480	227	NR	610	814	NR	740	24	NR	870	0	NR	1000	0	NR
485	248	NR	615	771	NR	745	20	NR	875	0	NR			

REPORT NUMBER: SP1-2407-157-8

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 3.37

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	289	NR	620	725	NR	750	17	NR	880	0	NR
365	0	NR	495	351	NR	625	673	NR	755	15	NR	885	0	NR
370	0	NR	500	414	NR	630	619	NR	760	13	NR	890	0	NR
375	0	NR	505	470	NR	635	562	NR	765	11	NR	895	0	NR
380	0	NR	510	513	NR	640	506	NR	770	9	NR	900	0	NR
385	0	NR	515	546	NR	645	452	NR	775	8	NR	905	0	NR
390	0	NR	520	571	NR	650	400	NR	780	7	NR	910	0	NR
395	1	NR	525	592	NR	655	352	NR	785	6	NR	915	0	NR
400	3	NR	530	606	NR	660	307	NR	790	5	NR	920	0	NR
405	6	NR	535	624	NR	665	267	NR	795	4	NR	925	0	NR
410	12	NR	540	642	NR	670	231	NR	800	4	NR	930	0	NR
415	22	NR	545	663	NR	675	199	NR	805	3	NR	935	0	NR
420	44	NR	550	686	NR	680	171	NR	810	3	NR	940	0	NR
425	83	NR	555	713	NR	685	146	NR	815	2	NR	945	0	NR
430	150	NR	560	745	NR	690	125	NR	820	2	NR	950	0	NR
435	267	NR	565	774	NR	695	106	NR	825	2	NR	955	0	NR
440	466	NR	570	806	NR	700	90	NR	830	1	NR	960	0	NR
445	804	NR	575	835	NR	705	76	NR	835	1	NR	965	0	NR
450	1000	NR	580	858	NR	710	65	NR	840	1	NR	970	0	NR
455	715	NR	585	875	NR	715	55	NR	845	1	NR	975	0	NR
460	492	NR	590	884	NR	720	47	NR	850	1	NR	980	0	NR
465	402	NR	595	880	NR	725	40	NR	855	1	NR	985	0	NR
470	288	NR	600	868	NR	730	34	NR	860	1	NR	990	0	NR
475	226	NR	605	844	NR	735	28	NR	865	1	NR	995	0	NR
480	227	NR	610	814	NR	740	24	NR	870	0	NR	1000	0	NR
485	248	NR	615	771	NR	745	20	NR	875	0	NR			

**Summary**

$R_f = 82.6$   
 $R_g = 95.1$   
 CIE  $R_a = 80.6$   
 $R_g = -5.8$



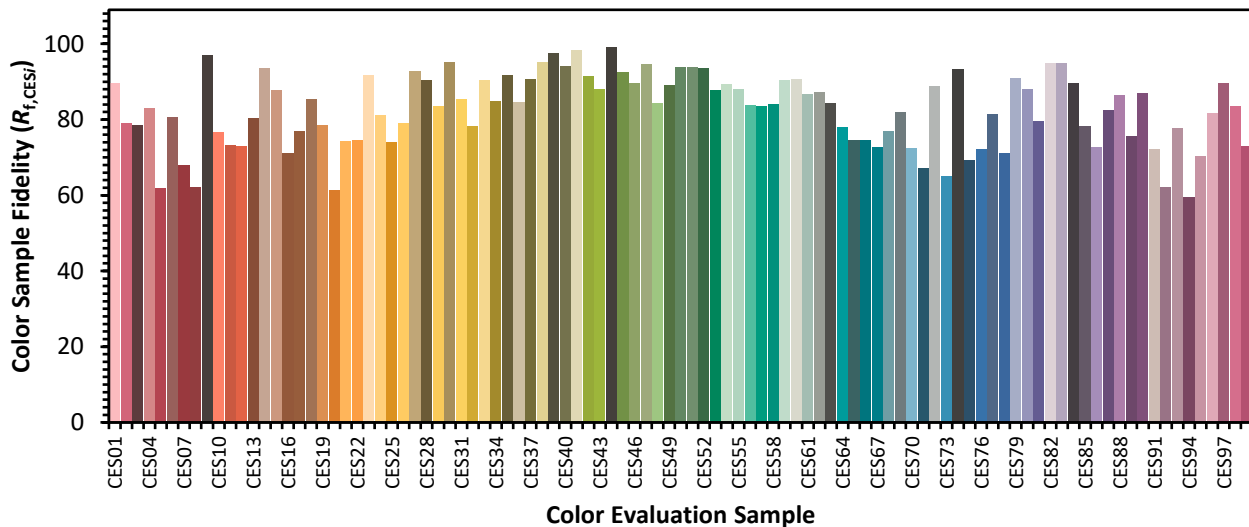
**Color Vector Graphics**



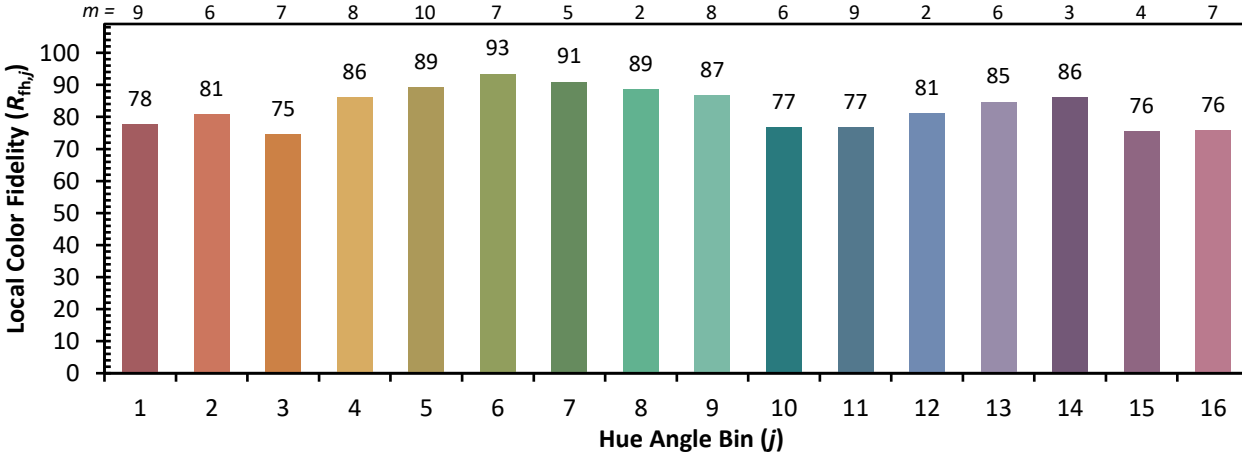


Individual Sample Fidelity Index ( $R_{f,i}$ )

CES01 = 85	CES26 = 79	CES51 = 94	CES76 = 72
CES02 = 61	CES27 = 93	CES52 = 94	CES77 = 82
CES03 = 31	CES28 = 90	CES53 = 88	CES78 = 71
CES04 = 69	CES29 = 83	CES54 = 89	CES79 = 91
CES05 = 48	CES30 = 95	CES55 = 88	CES80 = 88
CES06 = 50	CES31 = 86	CES56 = 84	CES81 = 80
CES07 = 40	CES32 = 78	CES57 = 84	CES82 = 95
CES08 = 39	CES33 = 90	CES58 = 84	CES83 = 95
CES09 = 29	CES34 = 85	CES59 = 90	CES84 = 90
CES10 = 74	CES35 = 92	CES60 = 91	CES85 = 78
CES11 = 57	CES36 = 85	CES61 = 87	CES86 = 73
CES12 = 63	CES37 = 91	CES62 = 87	CES87 = 83
CES13 = 42	CES38 = 95	CES63 = 84	CES88 = 86
CES14 = 74	CES39 = 98	CES64 = 78	CES89 = 76
CES15 = 71	CES40 = 94	CES65 = 75	CES90 = 87
CES16 = 46	CES41 = 98	CES66 = 75	CES91 = 72
CES17 = 49	CES42 = 92	CES67 = 73	CES92 = 62
CES18 = 56	CES43 = 88	CES68 = 77	CES93 = 78
CES19 = 71	CES44 = 99	CES69 = 82	CES94 = 60
CES20 = 65	CES45 = 93	CES70 = 72	CES95 = 70
CES21 = 86	CES46 = 90	CES71 = 67	CES96 = 82
CES22 = 78	CES47 = 95	CES72 = 89	CES97 = 90
CES23 = 91	CES48 = 84	CES73 = 65	CES98 = 84
CES24 = 90	CES49 = 89	CES74 = 93	CES99 = 73
CES25 = 71	CES50 = 94	CES75 = 69	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)