

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: INVUE

Report Number: P870683

Luminaire Tested: **EMM2-HTN-SA3B-840-U-T2R-HSS**

Issue Date: 09/05/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P870683  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 09/05/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: EMM2-HTN-SA3B-840-U-T2R-HSS  
Description: EPIC MODERN TALL HOUSING DISCRETE LED ARRAYS 150W 80CRI 4000K  
FITXURE w/ TYPE II ROADWAY DISTRIBUTION OPTIC AND HOUSE SIDE SHIELD  
Light Source: (30) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

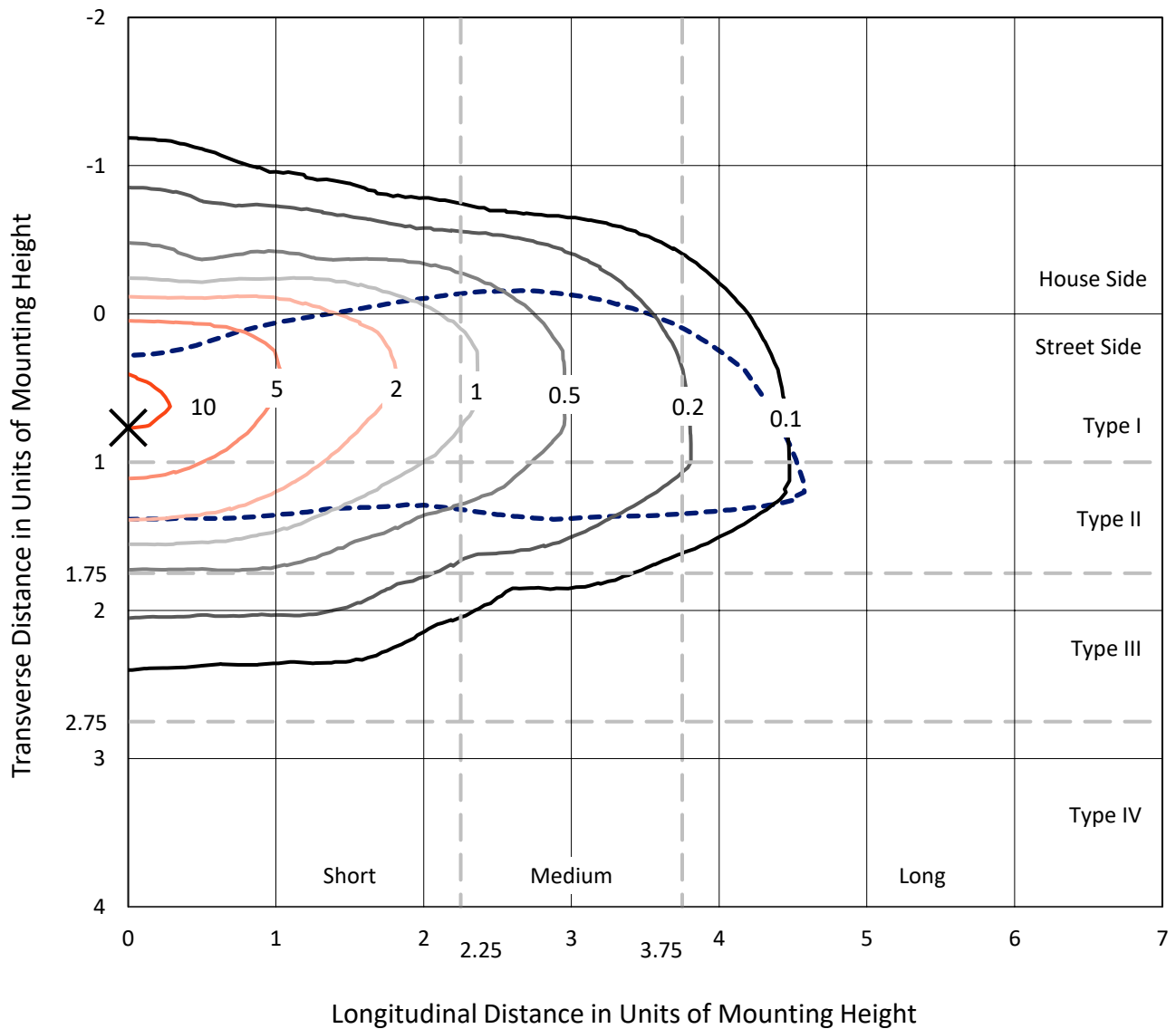
Lumens per Lamp: N/A  
Luminaire Lumens: 12937.6 lumens  
Efficiency: N/A  
Efficacy: 96.5 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.33' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B2 - U0 - G2

Input Watts (W): 134  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 6.70%  
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

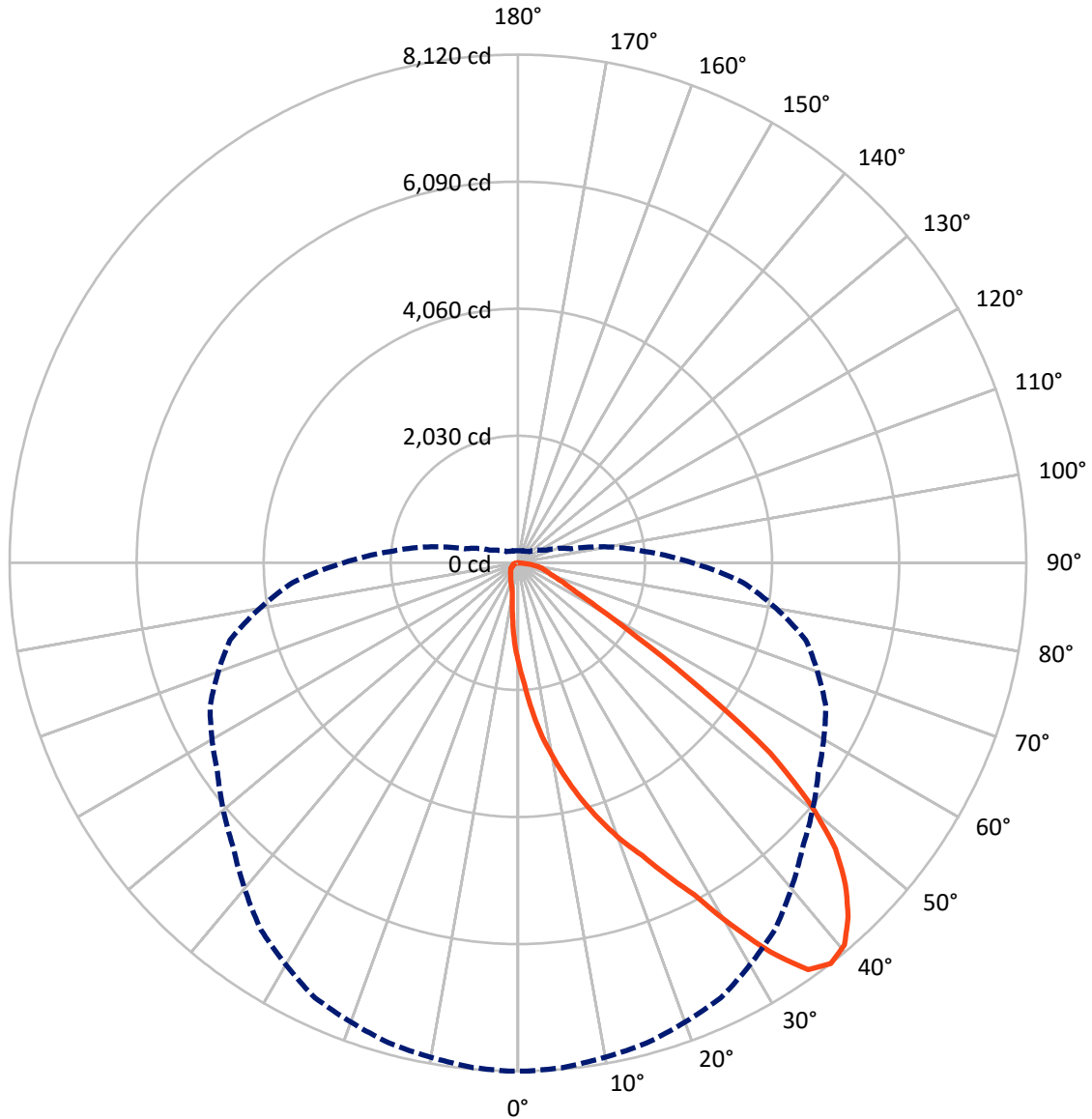
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 11.1 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral      - - - Horizontal Cone Through 37.5-Deg Vertical

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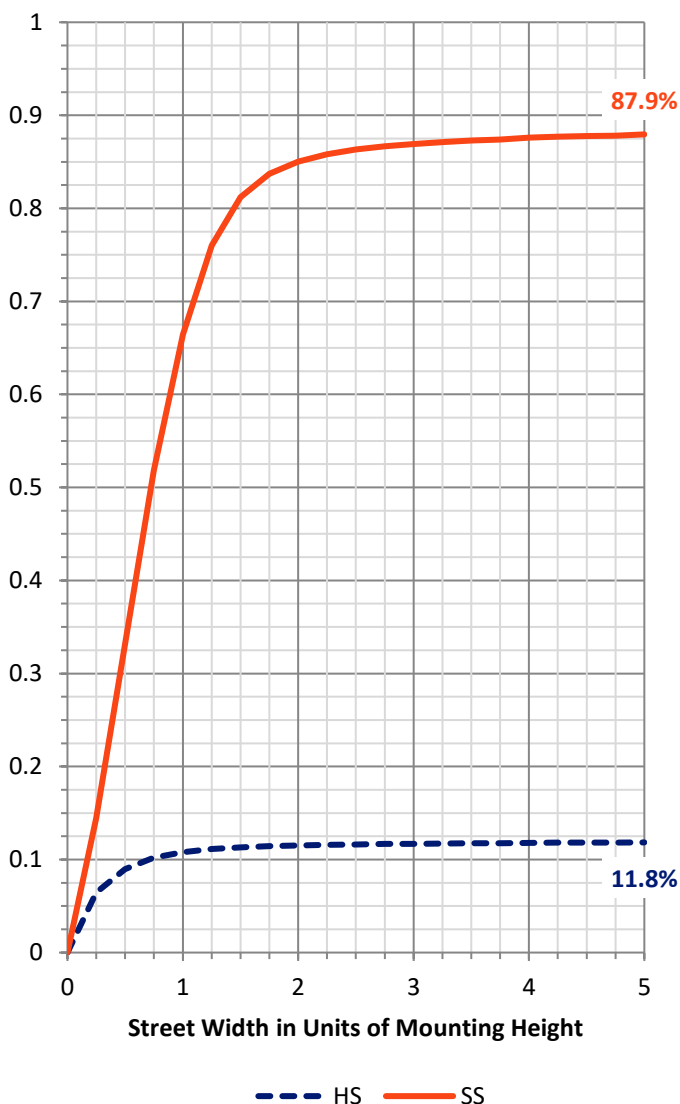
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1543.1	0.0	1543.1
	% Fixture	11.9	0.0	11.9
<b>Street Side</b>	Lumens	11394.5	0.0	11394.5
	% Fixture	88.1	0.0	88.1
<b>Total</b>	Lumens	12937.6	0.0	12937.6
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	160.8	1.2
10°-20°	562.2	4.3
20°-30°	1160.0	9.0
30°-40°	2041.0	15.8
40°-50°	2771.2	21.4
50°-60°	2745.7	21.2
60°-70°	2113.8	16.3
70°-80°	1226.8	9.5
80°-90°	156.0	1.2
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°	12937.6	100.0
0°-180°	12937.6	100.0

**Coefficient of Utilization**



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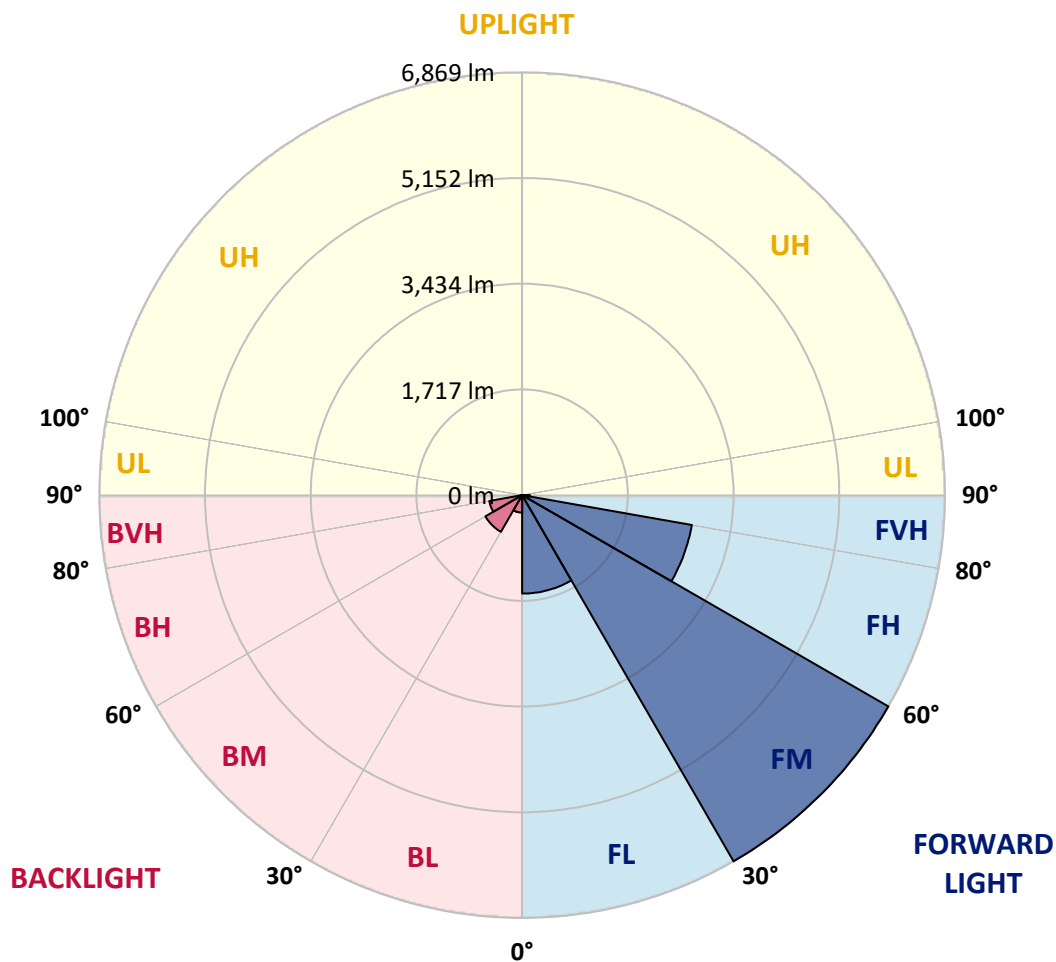
CATALOG NUMBER: EMM2-HTN-SA3B-840-U-T2R-HSS

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1599.3	12.4			
FM (30°-60°)	6868.7	53.1			
FH (60°-80°)	2799.2	21.6			G2/5000
FVH (80°-90°)	127.3	1.0			G2/225
BL (0°-30°)	283.7	2.2	B1/500		
BM (30°-60°)	689.2	5.3	B1/1000		
BH (60°-80°)	541.4	4.2	B2/1000		G2/1000
BVH (80°-90°)	28.8	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1603.1	1603.1	1603.1	1603.1	1603.1	1603.1	1603.1	1603.1	1603.1	1603.1	1603.1
2.5°	1931.7	1960.6	1938.9	1920.9	1895.6	1870.3	1834.2	1794.5	1744.0	1682.6	1628.4
5°	2368.6	2383.1	2375.8	2365.0	2285.6	2209.7	2133.9	2040.0	1910.1	1794.5	1671.7
7.5°	2805.5	2798.3	2780.2	2747.7	2675.5	2588.9	2451.7	2296.4	2112.3	1910.1	1718.7
10°	3188.2	3199.1	3184.6	3134.1	3043.8	2924.7	2758.6	2581.6	2332.5	2050.9	1783.7
12.5°	3589.0	3596.2	3596.2	3487.9	3426.5	3242.4	3065.5	2827.2	2549.1	2224.2	1859.5
15°	3982.6	3968.1	3968.1	3895.9	3787.6	3581.8	3383.2	3094.4	2780.2	2386.7	1946.2
17.5°	4358.1	4365.3	4332.8	4253.4	4148.7	3950.1	3704.6	3386.8	3007.7	2581.6	2036.4
20°	4730.0	4708.3	4693.9	4614.5	4502.5	4267.8	4033.1	3672.1	3274.9	2801.9	2162.8
22.5°	5076.6	5087.5	5051.4	4925.0	4820.3	4607.2	4340.0	4007.9	3556.5	3022.1	2300.0
25°	5524.4	5488.2	5520.7	5369.1	5206.6	4953.9	4650.6	4322.0	3863.4	3292.9	2469.7
27.5°	6001.0	6022.6	6004.6	5838.5	5618.2	5278.8	4961.1	4610.8	4174.0	3549.3	2661.1
30°	6712.3	6701.4	6705.0	6455.9	6091.2	5686.8	5296.9	4914.1	4484.5	3863.4	2884.9
32.5°	7416.3	7456.1	7358.6	7138.3	6719.5	6109.3	5632.7	5206.6	4784.2	4134.2	3112.4
35°	7983.2	7972.4	7932.7	7687.2	7271.9	6679.8	6015.4	5531.6	5101.9	4466.4	3365.2
37.5°	8120.4	8120.4	8095.2	7943.5	7669.1	7156.4	6430.6	5856.5	5426.9	4762.5	3610.7
40°	8030.2	8012.1	7997.7	7896.6	7748.5	7445.2	6867.5	6192.3	5773.5	5145.2	3881.5
42.5°	7734.1	7737.7	7719.6	7661.9	7582.4	7466.9	7138.3	6549.8	6112.9	5506.3	4148.7
45°	7336.9	7344.1	7322.5	7315.3	7275.5	7275.5	7199.7	6831.4	6434.2	5874.6	4441.1
47.5°	6827.8	6824.2	6813.4	6795.3	6874.7	6961.4	7030.0	6990.3	6719.5	6271.8	4704.7
50°	6051.5	6044.3	6076.8	6167.1	6362.0	6553.4	6755.6	6943.3	6925.3	6640.1	5022.5
52.5°	5044.1	4997.2	5033.3	5311.3	5712.1	6138.2	6423.4	6719.5	7030.0	7030.0	5336.6
55°	3527.6	3567.4	3589.0	3997.0	4787.8	5520.7	6022.6	6405.4	6990.3	7340.5	5683.2
57.5°	2245.8	2260.3	2325.3	2765.8	3693.7	4610.8	5499.1	6127.3	6842.3	7600.5	6029.8
60°	1512.9	1462.3	1512.9	1765.6	2657.5	3617.9	4730.0	5777.1	6629.2	7788.3	6412.6
62.5°	1068.8	1065.2	1079.6	1227.6	1895.6	2718.8	3765.9	5304.1	6459.5	7799.1	6697.8
65°	863.0	837.7	848.5	931.6	1271.0	1993.1	2762.2	4448.4	6307.9	7607.7	6838.6
67.5°	693.3	682.4	689.6	743.8	953.2	1498.4	1946.2	3383.2	5986.5	7282.8	6759.2
70°	566.9	570.5	574.1	628.3	758.2	1133.8	1390.1	2321.7	5300.5	6914.5	6401.7
72.5°	491.1	491.1	494.7	530.8	635.5	899.1	1050.7	1509.3	4289.5	6517.3	5744.6
75°	433.3	433.3	433.3	465.8	541.6	722.1	816.0	1032.7	3079.9	5780.7	4751.7
77.5°	375.5	379.1	379.1	408.0	465.8	563.3	628.3	714.9	1964.2	4466.4	3596.2
80°	288.9	288.9	292.5	325.0	397.2	440.5	462.2	505.5	1032.7	2805.5	2282.0
82.5°	202.2	205.8	205.8	209.4	267.2	270.8	249.1	252.7	375.5	931.6	866.6
85°	21.7	25.3	28.9	28.9	46.9	57.8	61.4	57.8	61.4	108.3	108.3
87.5°	0.0	0.0	0.0	0.0	3.6	7.2	7.2	10.8	10.8	10.8	10.8
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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1603.1	1603.1	1603.1	1603.1	1603.1	1603.1	1603.1	1603.1	1603.1	1603.1	1603.1
2.5°	1599.5	1574.3	1520.1	1473.2	1429.8	1393.7	1368.5	1336.0	1310.7	1310.7	1325.1
5°	1610.4	1552.6	1440.7	1336.0	1252.9	1173.5	1101.3	1054.3	1018.2	996.5	996.5
7.5°	1624.8	1538.2	1368.5	1209.6	1079.6	953.2	841.3	787.1	733.0	714.9	718.5
10°	1653.7	1530.9	1303.5	1097.6	902.7	743.8	635.5	577.7	548.8	534.4	534.4
12.5°	1686.2	1530.9	1234.9	971.3	743.8	581.3	516.3	473.0	458.6	451.3	444.1
15°	1729.5	1538.2	1177.1	837.7	606.6	491.1	444.1	418.8	404.4	397.2	397.2
17.5°	1780.1	1545.4	1115.7	729.4	516.3	433.3	397.2	379.1	364.7	357.5	357.5
20°	1845.1	1563.4	1054.3	631.9	451.3	397.2	364.7	346.6	332.2	328.6	325.0
22.5°	1924.5	1592.3	992.9	552.4	408.0	361.1	332.2	317.7	306.9	299.7	299.7
25°	2018.4	1628.4	946.0	494.7	375.5	335.8	310.5	292.5	281.6	278.0	278.0
27.5°	2148.4	1689.8	899.1	451.3	350.2	310.5	285.2	270.8	260.0	256.4	252.7
30°	2271.1	1765.6	877.4	440.5	332.2	288.9	270.8	252.7	241.9	238.3	234.7
32.5°	2430.0	1852.3	863.0	440.5	325.0	274.4	252.7	238.3	227.5	223.9	220.3
35°	2599.7	1953.4	863.0	454.9	328.6	263.6	238.3	223.9	213.0	205.8	205.8
37.5°	2783.8	2054.5	870.2	476.6	339.4	256.4	223.9	209.4	198.6	195.0	195.0
40°	2978.8	2191.7	884.6	494.7	350.2	252.7	209.4	198.6	187.8	180.5	180.5
42.5°	3159.4	2300.0	909.9	516.3	357.5	249.1	198.6	187.8	176.9	173.3	173.3
45°	3368.8	2419.2	931.6	530.8	357.5	238.3	187.8	176.9	169.7	166.1	162.5
47.5°	3534.9	2516.6	942.4	538.0	350.2	227.5	176.9	169.7	162.5	155.3	158.9
50°	3737.1	2621.4	960.4	541.6	335.8	213.0	169.7	158.9	151.6	148.0	148.0
52.5°	3932.0	2726.1	974.9	534.4	317.7	195.0	158.9	151.6	144.4	137.2	137.2
55°	4163.1	2841.6	996.5	523.5	288.9	176.9	148.0	140.8	130.0	126.4	122.8
57.5°	4426.7	2993.3	1014.6	501.9	252.7	158.9	140.8	130.0	115.5	108.3	108.3
60°	4668.6	3166.6	1029.0	447.7	220.3	148.0	130.0	119.2	104.7	101.1	101.1
62.5°	4928.6	3347.1	1029.0	353.8	187.8	133.6	122.8	111.9	97.5	93.9	93.9
65°	5109.1	3509.6	996.5	263.6	158.9	126.4	119.2	104.7	90.3	86.7	86.7
67.5°	5159.7	3610.7	906.3	187.8	137.2	119.2	111.9	97.5	86.7	79.4	79.4
70°	4997.2	3531.3	740.2	144.4	119.2	108.3	101.1	90.3	79.4	75.8	75.8
72.5°	4531.4	3228.0	552.4	122.8	104.7	101.1	93.9	83.0	75.8	72.2	72.2
75°	3794.8	2682.7	390.0	108.3	97.5	90.3	83.0	75.8	68.6	68.6	68.6
77.5°	2874.1	1938.9	241.9	97.5	83.0	83.0	75.8	68.6	65.0	61.4	61.4
80°	1855.9	1224.0	137.2	68.6	57.8	61.4	54.2	46.9	46.9	43.3	43.3
82.5°	787.1	483.8	72.2	39.7	28.9	25.3	18.1	18.1	14.4	14.4	14.4
85°	79.4	28.9	14.4	10.8	10.8	7.2	7.2	7.2	7.2	3.6	3.6
87.5°	10.8	10.8	10.8	7.2	7.2	7.2	3.6	3.6	3.6	3.6	3.6
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: SP1-2407-157-8

Test Date: 09/05/2024

Luminaire Tested: MEM2-HTN-SA-40-840-U-5WQ

Data in this report applies to families of products including MEM2-HTN-SA-40-840-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-40-840-U-5WQ**  
 Description: Epic Modern Light Square 40W 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

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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

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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**

$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /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			

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**Scotopic Flux vs. Wavelength**



**Scotopic Lumens: NR**

**S/P: 1.66**

$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /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			

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Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 3.37

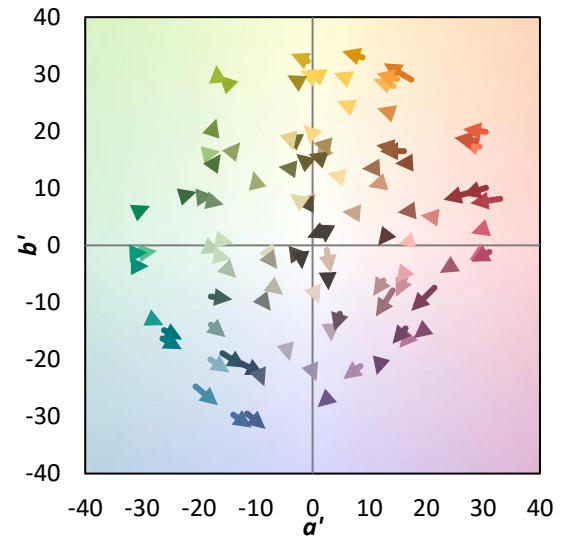
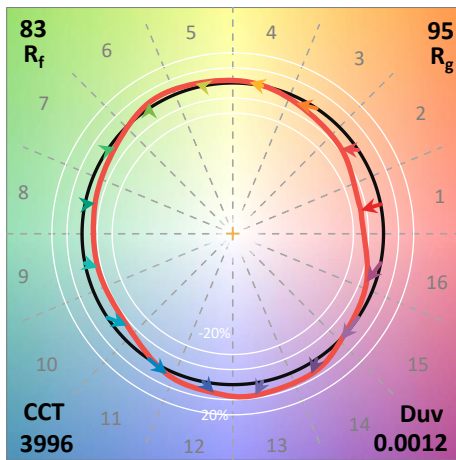
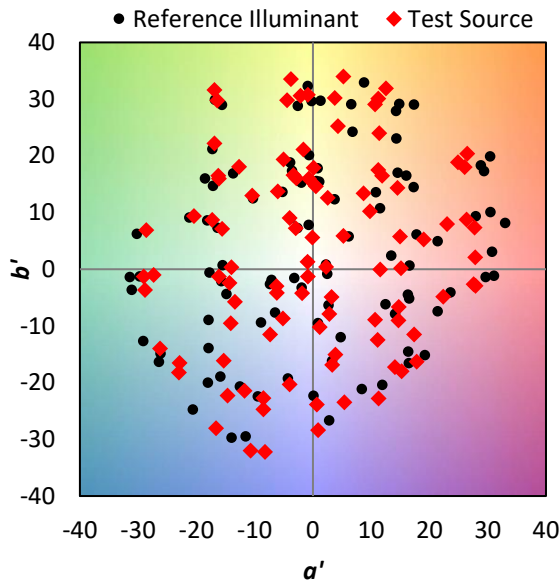
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	289	NR	620	725	NR	750	17	NR	880	0	NR
365	0	NR	495	351	NR	625	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  $R_a = 80.6$   
 $R_9 = -5.8$



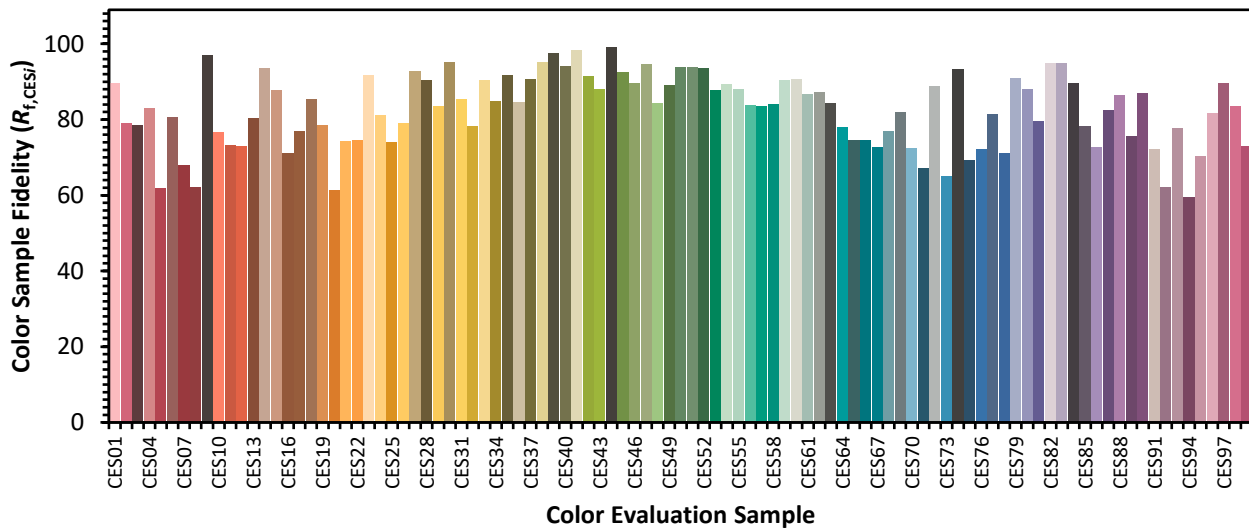
**Color Vector Graphics**



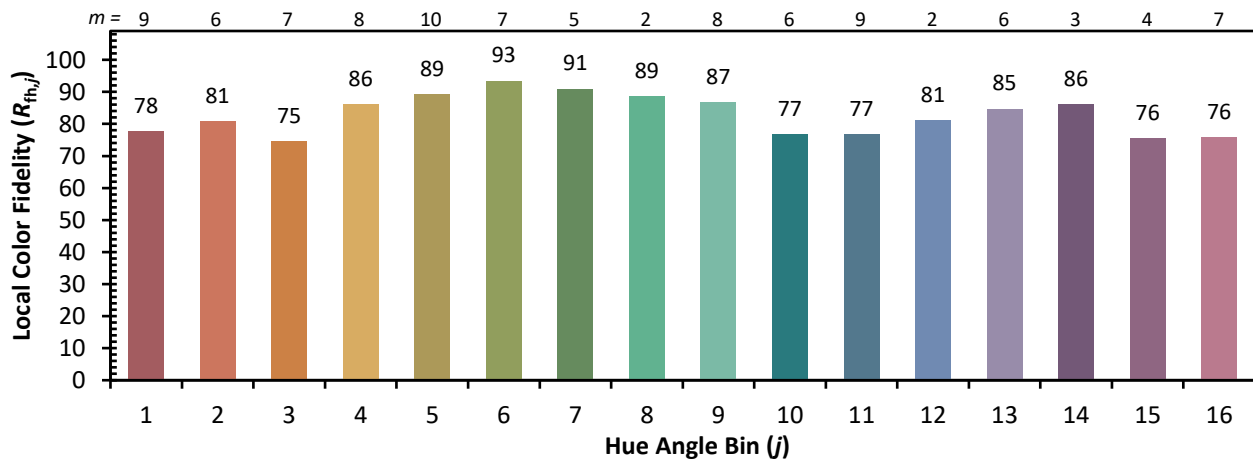


Individual Sample Fidelity Index ( $R_{f,i}$ )

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)