

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: P870854

Luminaire Tested: **EMM2-HTN-SA2A-840-U-T4W**

Issue Date: 09/05/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P870854  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 09/05/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: EMM2-HTN-SA2A-840-U-T4W  
Description: EPIC MODERN TALL HOUSING DISCRETE LED ARRAYS 70W 80CRI 4000K  
FIXTURE w/ TYPE IV WIDE DISTRIBUTION OPTIC  
Light Source: (20) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

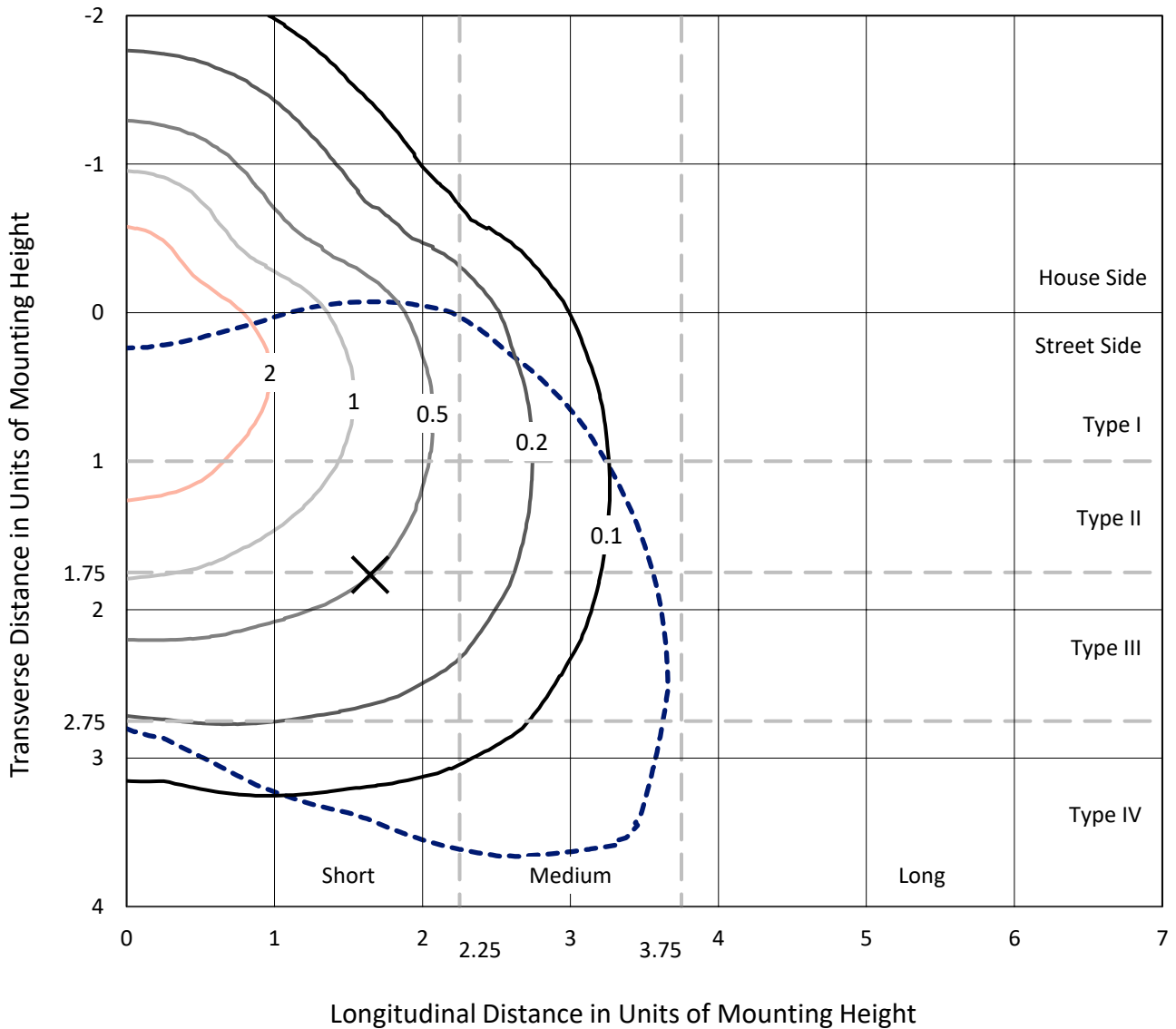
Lumens per Lamp: N/A  
Luminaire Lumens: 8738.8 lumens  
Efficiency: N/A  
Efficacy: 143.3 lumens/watt  
Luminous Opening: Rectangular (W 0.67' x L: 0.33' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G2

Input Watts (W): 61  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 9.89%  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

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 CATALOG NUMBER: EMM2-HTN-SA2A-840-U-T4W

### Iso-Footcandle Lines of Horizontal Illumination

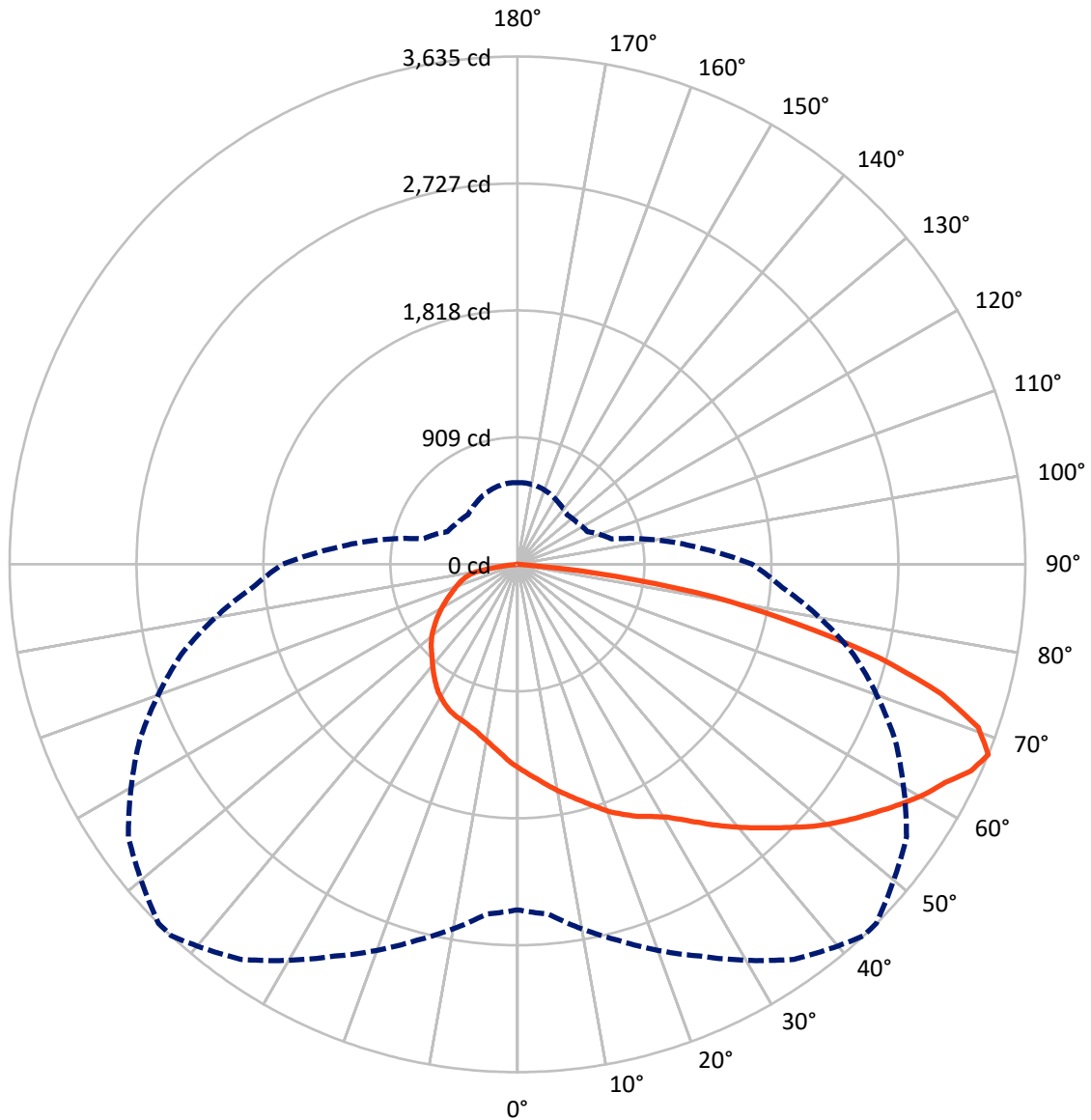
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4.2 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 43-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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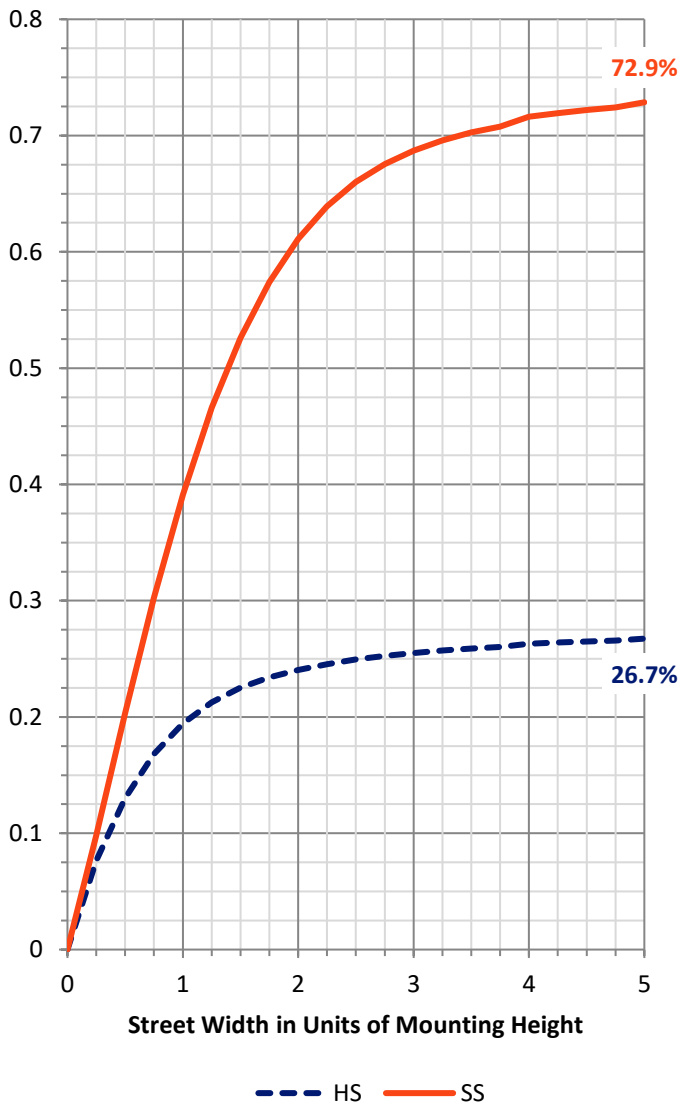
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2350.8	0.0	2350.8
	% Fixture	26.9	0.0	26.9
<b>Street Side</b>	Lumens	6388.0	0.0	6388.0
	% Fixture	73.1	0.0	73.1
<b>Total</b>	Lumens	8738.8	0.0	8738.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	139.6	1.6
10°-20°	426.3	4.9
20°-30°	727.4	8.3
30°-40°	1060.9	12.1
40°-50°	1425.2	16.3
50°-60°	1744.7	20.0
60°-70°	1836.1	21.0
70°-80°	1198.7	13.7
80°-90°	179.8	2.1
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°	8738.8	100.0
0°-180°	8738.8	100.0



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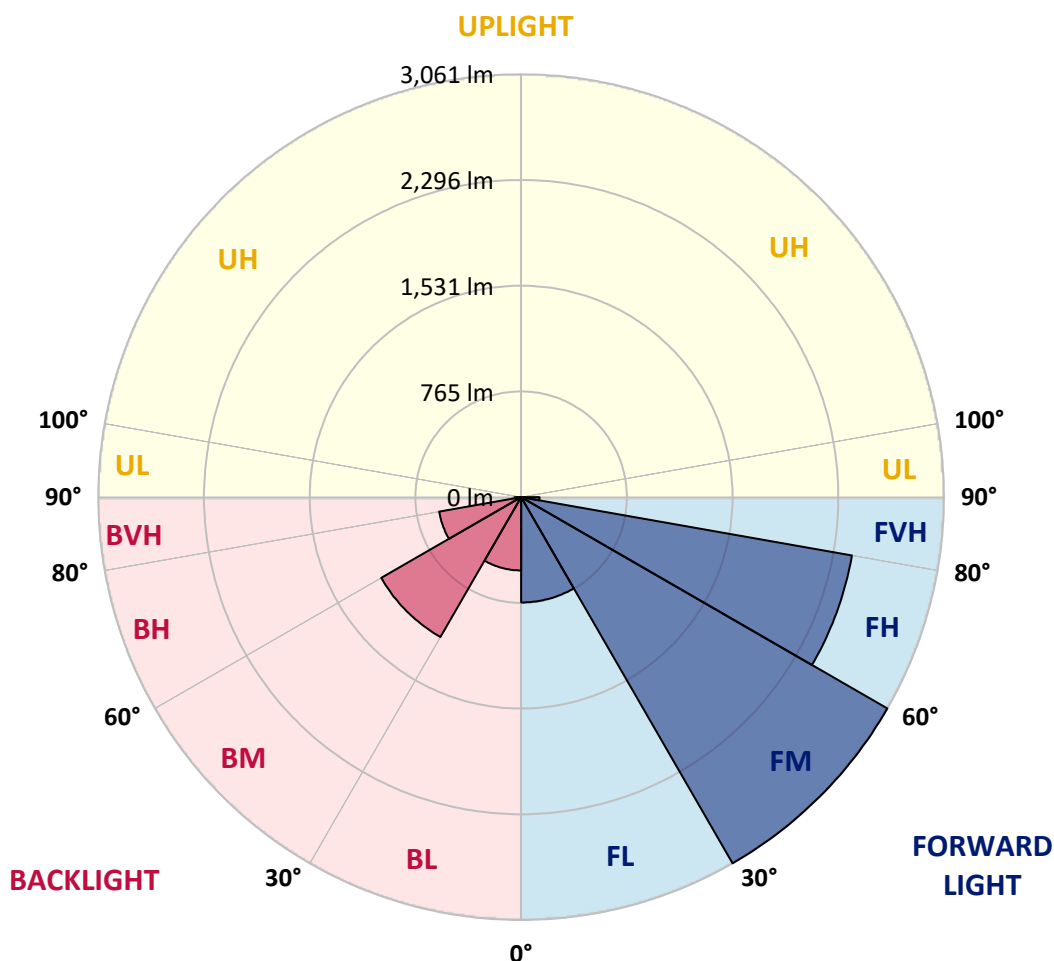
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	762.6	8.7			
FM (30°-60°)	3061.1	35.0			
FH (60°-80°)	2431.6	27.8			G2/5000
FVH (80°-90°)	132.7	1.5			G2/225
BL (0°-30°)	530.7	6.1	B2/1000		
BM (30°-60°)	1169.6	13.4	B2/2500		
BH (60°-80°)	603.3	6.9	B2/1000		G2/1000
BVH (80°-90°)	47.1	0.5			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 IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	43°	45°	55°	65°	75°	85°
0°	1458.8	1458.8	1458.8	1458.8	1458.8	1458.8	1458.8	1458.8	1458.8	1458.8	1458.8
2.5°	1526.0	1524.2	1518.9	1515.3	1504.7	1503.0	1503.0	1492.4	1480.0	1472.9	1465.8
5°	1594.9	1586.1	1582.5	1575.5	1557.8	1547.2	1550.7	1531.3	1506.5	1488.8	1469.4
7.5°	1656.8	1653.3	1640.9	1632.0	1610.8	1600.2	1596.7	1566.6	1534.8	1508.3	1476.4
10°	1731.1	1722.2	1715.2	1697.5	1669.2	1653.3	1648.0	1609.1	1568.4	1533.0	1490.6
12.5°	1798.3	1787.7	1778.8	1761.1	1732.8	1706.3	1699.2	1655.0	1603.8	1556.0	1503.0
15°	1849.5	1851.3	1842.5	1826.6	1794.7	1762.9	1757.6	1699.2	1637.4	1579.0	1515.3
17.5°	1897.3	1904.4	1899.0	1888.4	1856.6	1824.8	1819.5	1754.1	1679.8	1605.5	1529.5
20°	1943.3	1943.3	1941.5	1934.4	1911.4	1890.2	1879.6	1814.2	1720.5	1633.8	1548.9
22.5°	1969.8	1976.8	1976.8	1976.8	1962.7	1945.0	1941.5	1877.8	1775.3	1669.2	1566.6
25°	2010.4	2019.3	2019.3	2015.7	2003.4	1998.1	1992.8	1932.6	1828.3	1709.9	1586.1
27.5°	2097.1	2095.3	2081.2	2063.5	2045.8	2044.0	2037.0	1994.5	1890.2	1754.1	1612.6
30°	2217.3	2220.9	2203.2	2148.4	2107.7	2098.9	2100.6	2063.5	1962.7	1805.3	1642.7
32.5°	2401.2	2401.2	2332.3	2261.5	2203.2	2180.2	2174.9	2143.1	2037.0	1861.9	1676.3
35°	2539.1	2533.8	2494.9	2411.8	2339.3	2273.9	2265.1	2222.6	2120.1	1925.6	1713.4
37.5°	2643.5	2654.1	2624.0	2560.4	2489.6	2376.5	2358.8	2298.7	2196.1	1987.5	1750.5
40°	2845.0	2818.5	2746.0	2687.7	2602.8	2477.2	2461.3	2387.1	2273.9	2056.4	1796.5
42.5°	2991.8	2954.7	2871.6	2793.8	2687.7	2578.0	2563.9	2482.6	2364.1	2134.2	1844.2
45°	3202.2	3119.1	3004.2	2935.2	2784.9	2687.7	2670.0	2581.6	2457.8	2217.3	1904.4
47.5°	3405.6	3260.6	3138.6	3106.7	2891.0	2806.1	2792.0	2689.4	2558.6	2307.5	1962.7
50°	3379.0	3283.5	3242.9	3212.8	2983.0	2917.5	2903.4	2799.1	2661.1	2403.0	2021.1
52.5°	3311.8	3320.7	3322.4	3250.0	3069.6	3021.9	3007.7	2917.5	2767.2	2486.1	2077.6
55°	3382.6	3393.2	3391.4	3281.8	3170.4	3126.2	3117.3	3037.8	2869.8	2563.9	2118.3
57.5°	3490.4	3455.1	3449.8	3361.4	3278.2	3237.6	3227.0	3158.0	2956.4	2620.5	2150.1
60°	3509.9	3439.2	3462.1	3379.0	3359.6	3347.2	3343.7	3262.3	3037.8	2666.4	2162.5
62.5°	3292.4	3280.0	3370.2	3336.6	3402.0	3437.4	3439.2	3336.6	3082.0	2684.1	2150.1
65°	2921.1	2970.6	3165.1	3262.3	3465.7	3566.5	3562.9	3380.8	3076.7	2632.9	2074.1
67.5°	2473.7	2512.6	2786.7	3094.4	3451.5	3635.4	3633.7	3400.3	2984.7	2491.4	1902.6
70°	1876.1	1998.1	2387.1	2792.0	3260.6	3499.3	3529.3	3290.6	2774.3	2233.2	1642.7
72.5°	1426.9	1446.4	1916.7	2341.1	2919.3	3175.7	3170.4	2940.5	2422.4	1881.4	1368.6
75°	1013.2	1055.6	1442.9	1814.2	2392.4	2677.1	2664.7	2411.8	1932.6	1464.1	1046.8
77.5°	755.0	770.9	1055.6	1345.6	1789.4	2045.8	2040.5	1782.3	1421.6	1075.1	779.8
80°	551.7	578.2	760.3	938.9	1213.0	1434.0	1426.9	1182.9	912.4	751.5	569.4
82.5°	309.4	328.9	442.1	567.6	640.1	709.0	679.0	567.6	415.5	323.6	279.4
85°	8.8	10.6	15.9	19.5	33.6	56.6	61.9	54.8	65.4	40.7	44.2
87.5°	3.5	3.5	3.5	3.5	3.5	5.3	5.3	5.3	5.3	5.3	5.3
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: P870854  
 CATALOG NUMBER: EMM2-HTN-SA2A-840-U-T4W

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1458.8	1458.8	1458.8	1458.8	1458.8	1458.8	1458.8	1458.8	1458.8	1458.8	1458.8
2.5°	1462.3	1455.2	1441.1	1432.2	1426.9	1419.9	1409.3	1402.2	1396.9	1404.0	1402.2
5°	1460.5	1446.4	1421.6	1404.0	1386.3	1372.1	1356.2	1343.8	1336.8	1340.3	1338.5
7.5°	1460.5	1442.9	1404.0	1375.7	1349.1	1327.9	1310.2	1294.3	1287.3	1289.0	1287.3
10°	1467.6	1442.9	1391.6	1350.9	1315.5	1290.8	1271.3	1257.2	1251.9	1257.2	1259.0
12.5°	1474.7	1442.9	1381.0	1329.7	1283.7	1257.2	1239.5	1230.7	1234.2	1236.0	1237.7
15°	1478.2	1441.1	1370.4	1304.9	1253.7	1225.4	1214.8	1213.0	1221.8	1230.7	1232.4
17.5°	1487.1	1439.3	1354.4	1280.2	1227.1	1204.1	1198.8	1205.9	1223.6	1236.0	1239.5
20°	1497.7	1442.9	1336.8	1250.1	1200.6	1182.9	1191.8	1207.7	1228.9	1246.6	1250.1
22.5°	1508.3	1444.6	1320.8	1223.6	1172.3	1168.8	1188.2	1211.2	1236.0	1253.7	1257.2
25°	1520.7	1444.6	1299.6	1190.0	1144.0	1149.3	1179.4	1209.4	1232.4	1255.4	1259.0
27.5°	1533.0	1448.2	1276.6	1152.9	1108.7	1124.6	1161.7	1198.8	1223.6	1246.6	1251.9
30°	1554.2	1455.2	1257.2	1121.0	1073.3	1094.5	1138.7	1181.2	1207.7	1232.4	1237.7
32.5°	1575.5	1465.8	1241.3	1087.4	1037.9	1062.7	1112.2	1159.9	1188.2	1211.2	1214.8
35°	1603.8	1480.0	1228.9	1053.8	1002.6	1022.0	1075.1	1128.1	1159.9	1177.6	1186.5
37.5°	1633.8	1499.4	1218.3	1023.8	963.7	981.4	1037.9	1094.5	1128.1	1145.8	1149.3
40°	1670.9	1526.0	1211.2	995.5	926.5	940.7	997.3	1059.2	1091.0	1103.4	1110.4
42.5°	1711.6	1554.2	1205.9	967.2	885.9	900.0	960.1	1020.3	1052.1	1062.7	1068.0
45°	1762.9	1591.4	1202.4	937.1	852.3	864.7	924.8	984.9	1011.4	1025.6	1030.9
47.5°	1810.6	1628.5	1191.8	901.8	815.1	832.8	887.6	940.7	970.7	979.6	984.9
50°	1858.4	1660.3	1170.5	862.9	781.5	797.5	847.0	885.9	908.9	919.5	923.0
52.5°	1904.4	1683.3	1137.0	822.2	746.2	756.8	797.5	834.6	850.5	854.0	864.7
55°	1934.4	1695.7	1089.2	774.5	710.8	714.4	744.4	778.0	786.8	788.6	788.6
57.5°	1955.6	1688.6	1032.6	726.7	675.5	675.5	693.1	719.7	723.2	725.0	728.5
60°	1959.2	1663.9	960.1	682.5	636.6	631.2	648.9	664.8	666.6	670.1	673.7
62.5°	1932.6	1609.1	882.3	640.1	599.4	587.0	603.0	618.9	627.7	633.0	636.6
65°	1851.3	1497.7	793.9	597.7	564.1	542.8	562.3	588.8	606.5	608.3	608.3
67.5°	1681.6	1317.3	700.2	553.4	521.6	502.2	526.9	555.2	576.4	585.3	583.5
70°	1425.2	1117.5	613.6	507.5	479.2	466.8	493.3	525.2	542.8	549.9	553.4
72.5°	1147.6	894.7	537.5	461.5	442.1	435.0	461.5	493.3	518.1	528.7	530.5
75°	892.9	703.7	473.9	413.8	397.8	399.6	427.9	459.7	486.3	491.6	475.6
77.5°	693.1	560.5	413.8	357.2	348.3	360.7	389.0	422.6	438.5	443.8	433.2
80°	500.4	429.7	334.2	281.1	281.1	300.6	325.3	364.2	369.6	362.5	366.0
82.5°	236.9	208.6	164.4	136.2	127.3	141.5	150.3	162.7	176.8	180.4	171.5
85°	31.8	21.2	15.9	17.7	15.9	10.6	7.1	7.1	7.1	5.3	5.3
87.5°	5.3	5.3	3.5	3.5	3.5	3.5	3.5	3.5	1.8	1.8	1.8
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:  $4\pi$   
 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**

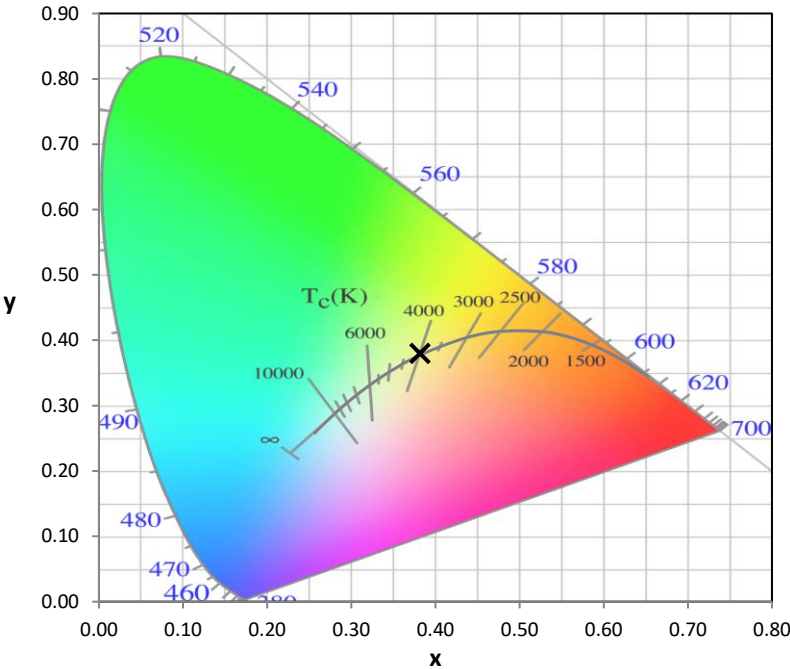
Stabilization Time: 29M  
 Operation Time: 1H 29M  
 Sphere Temperature (°C): 24.3

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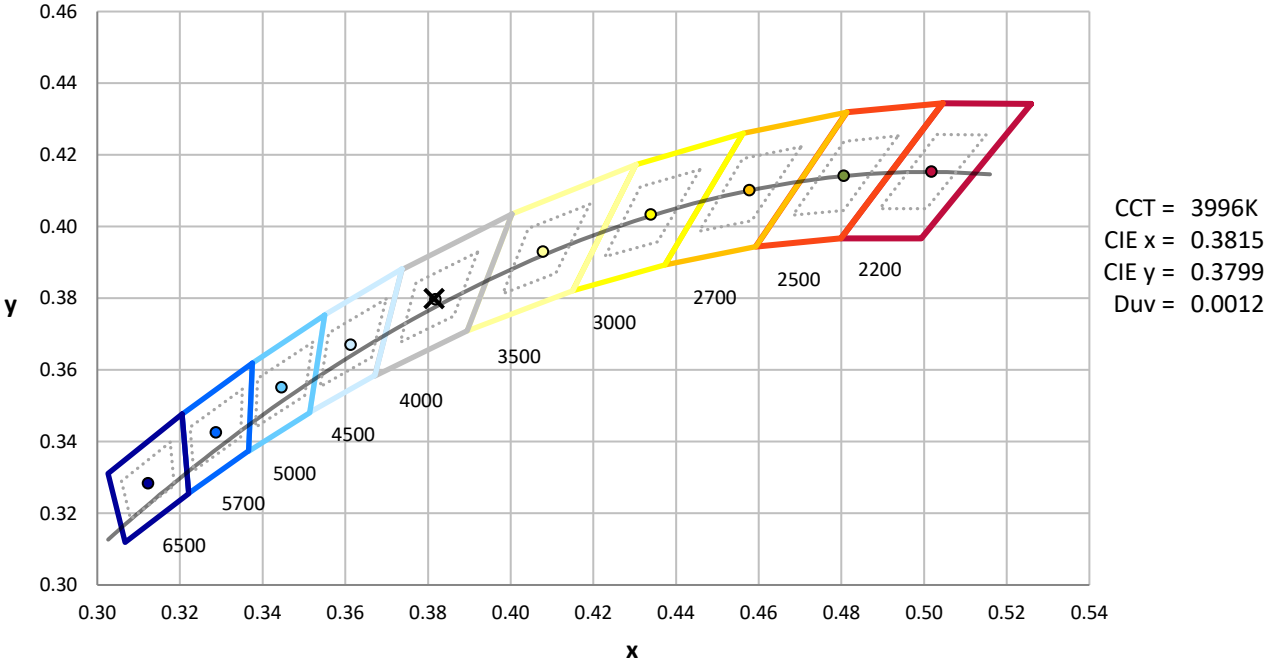
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

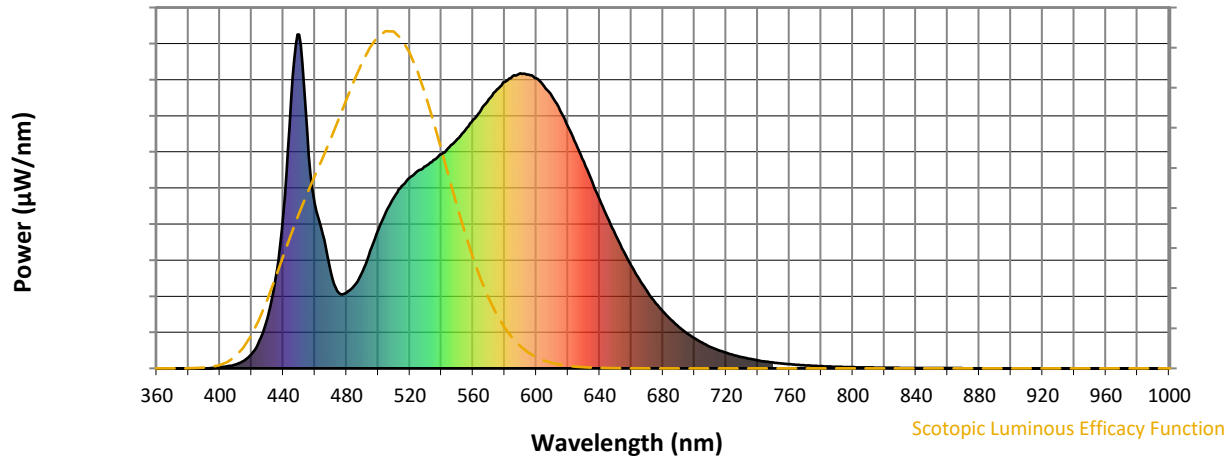


**Photopic Lumens: NR**

$\lambda$ (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**



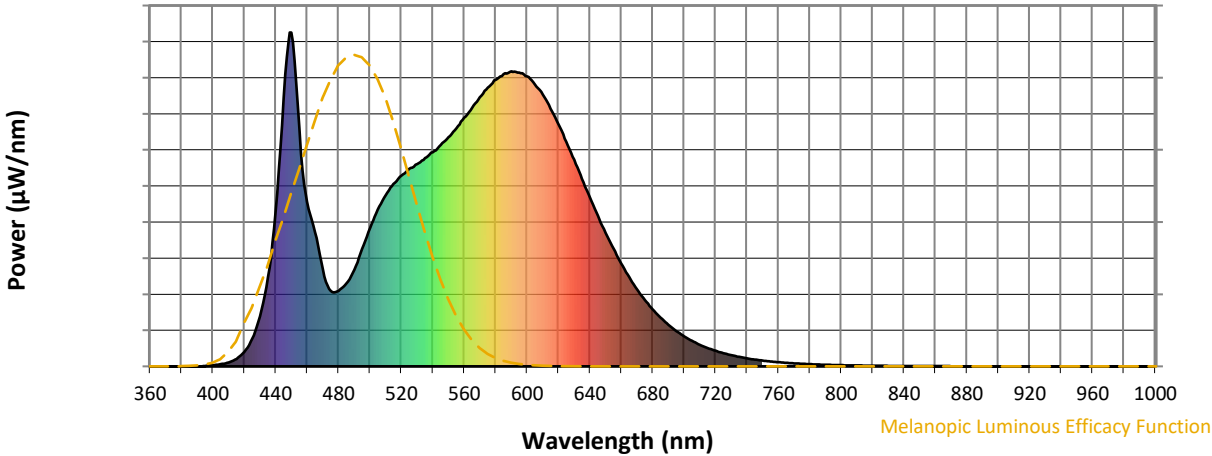
**Scotopic Lumens: NR**

**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**



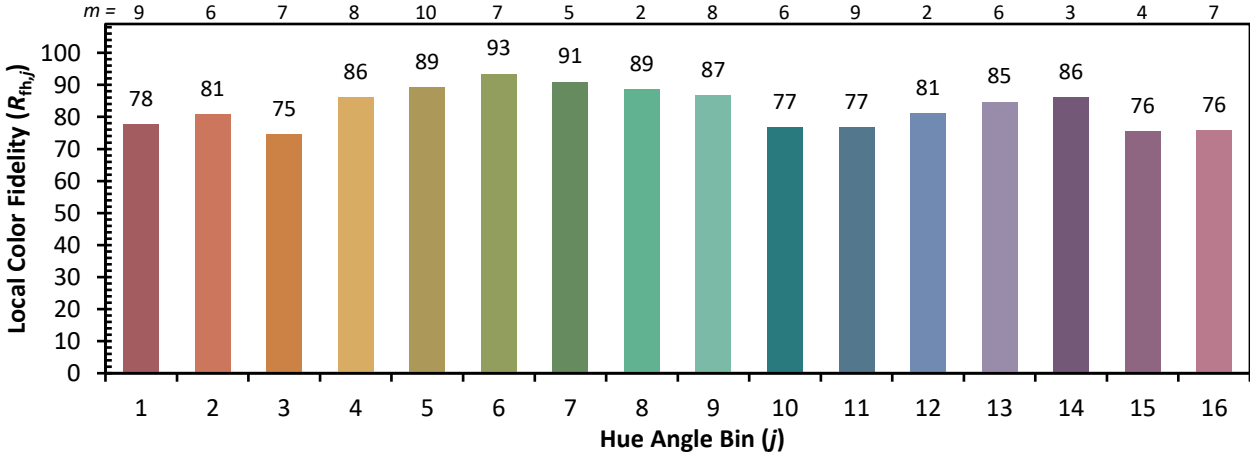


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

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)