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: McGRAW-EDISON

Report Number: P823407

Luminaire Tested: **TTN-D2-830-U-DL**

Issue Date: 4/16/2024

Report Generated By 670246001

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

Scaled Data Report

Test Information

Test Method:	LM-79-08
Report Number:	P823407
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2312-254-11)
Test Lab:	INNOVATION CENTER
Issue Date:	4/16/2024
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	McGRAW-EDISON
Catalog Number:	TTN-D2-830-U-DL
Description:	TOPTIER NANO LED PARKING GARAGE LUMINAIRE
	3000K, 80 CRI LEDS AND DRIVE LANE DISTRIBUTION
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	4491 lumens
Efficiency:	N/A
Efficacy:	105.7 lumens/watt
Luminous Opening:	Circular (Dia: 0.71' x H: 0')
IES Classification:	Type IV - Short
BUG Rating:	B1 - U0 - G2

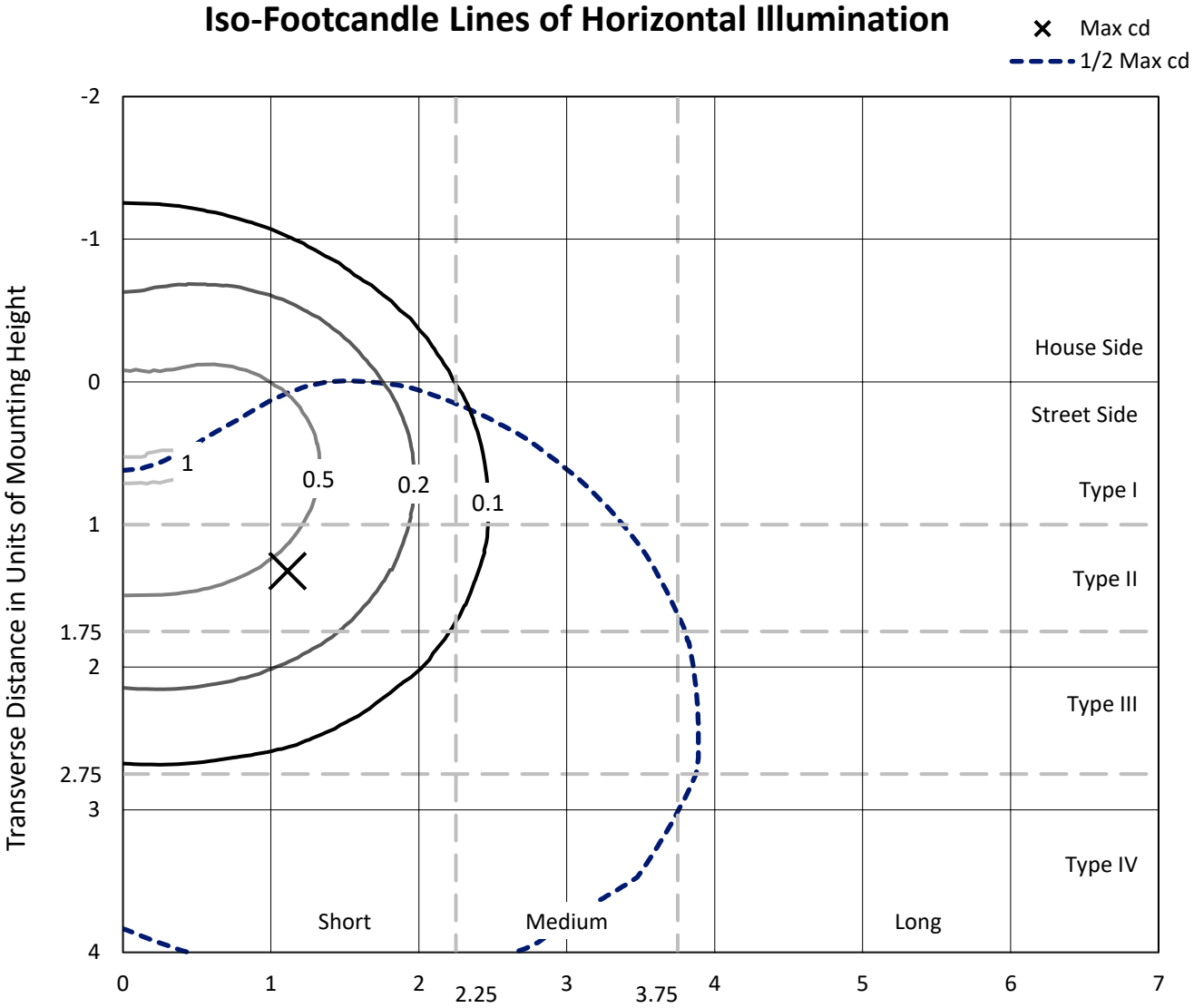
Input Watts (W):	42.5
Input Voltage (V):	NR
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	24 FT

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

Scaled Data Report

REPORT NUMBER: P823407
CATALOG NUMBER: TTN-D2-830-U-DL

Iso-Footcandle Lines of Horizontal Illumination



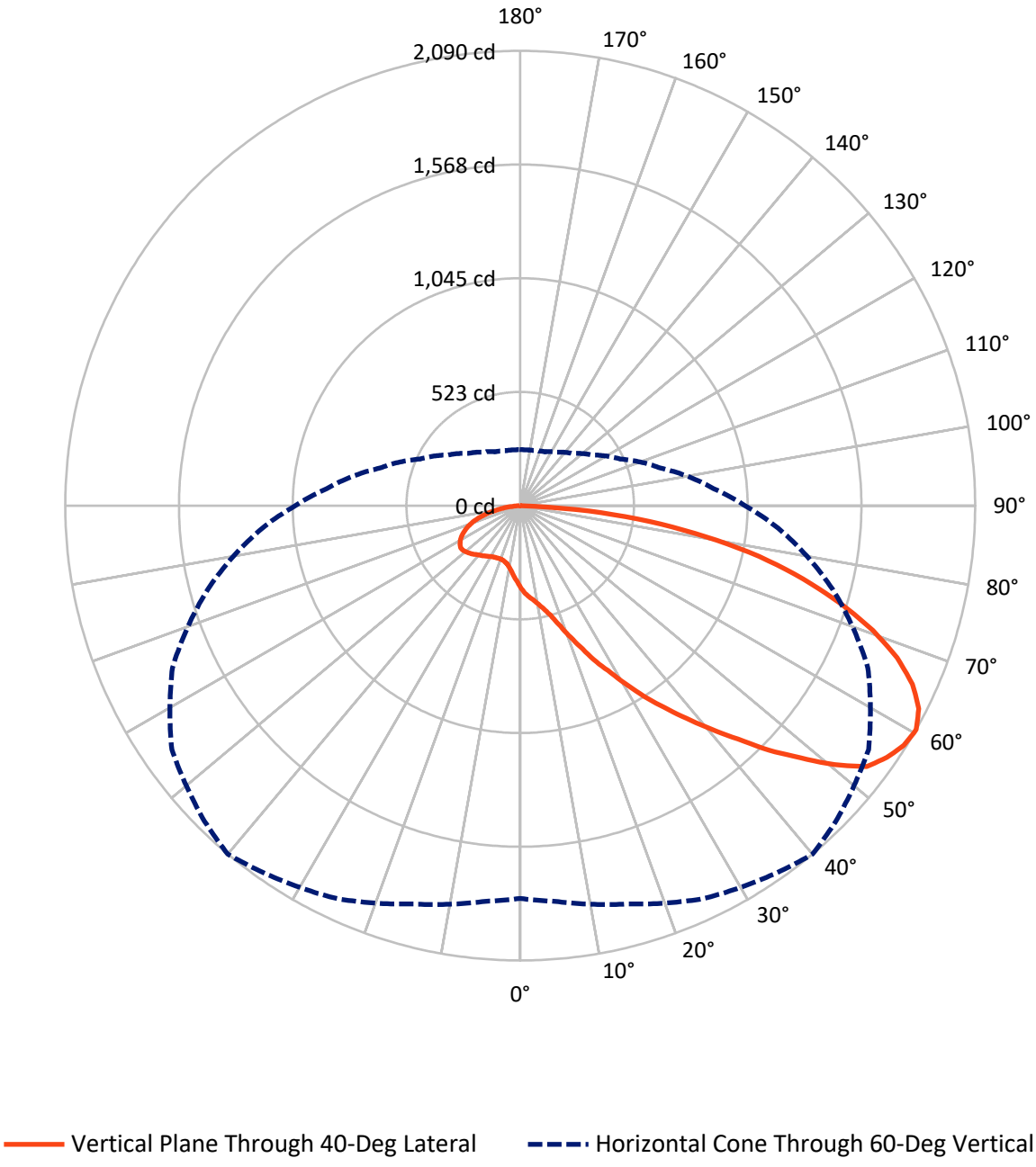
Based on 25 foot mounting height. Maximum calculated value = 1 fc
Type IV - Short - N/A

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

Scaled Data Report

REPORT NUMBER: P823407
CATALOG NUMBER: TTN-D2-830-U-DL

Luminous Intensity Polar Plot



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

Scaled Data Report

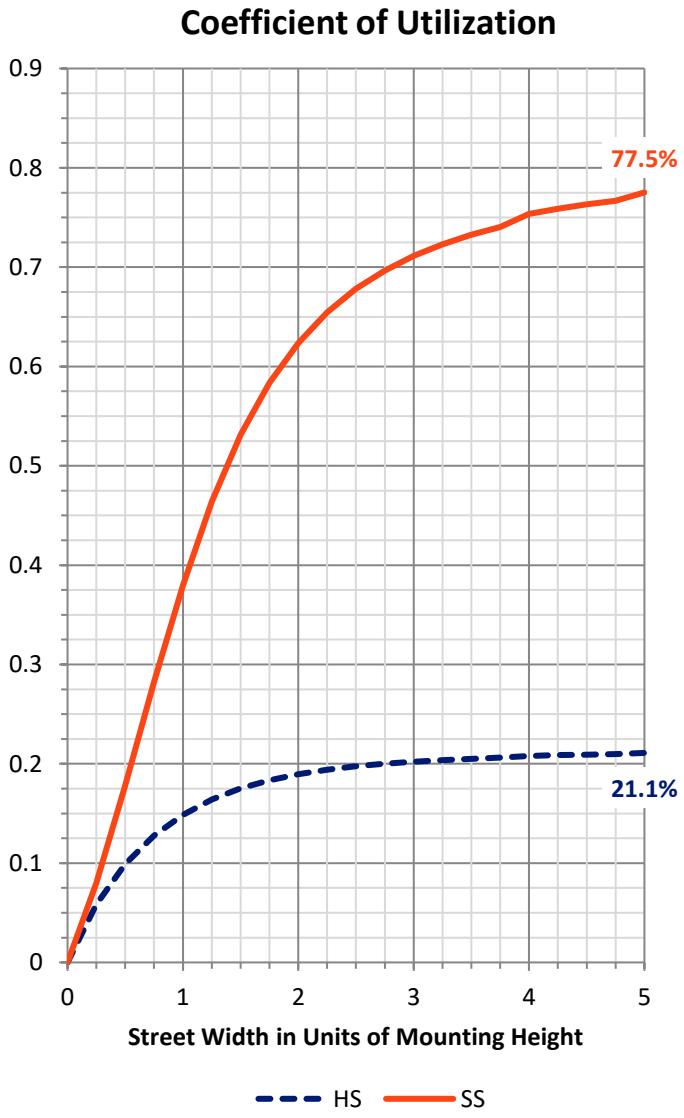
REPORT NUMBER: P823407
CATALOG NUMBER: TTN-D2-830-U-DL

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	956.4	0.0	956.4
	% Fixture	21.3	0.0	21.3
Street Side	Lumens	3534.6	0.0	3534.6
	% Fixture	78.7	0.0	78.7
Total	Lumens	4491.0	0.0	4491.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.7	0.8
10°-20°	113.8	2.5
20°-30°	240.5	5.4
30°-40°	439.5	9.8
40°-50°	714.2	15.9
50°-60°	992.7	22.1
60°-70°	1029.1	22.9
70°-80°	737.4	16.4
80°-90°	188.0	4.2
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°	4491.0	100.0
0°-180°	4491.0	100.0



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

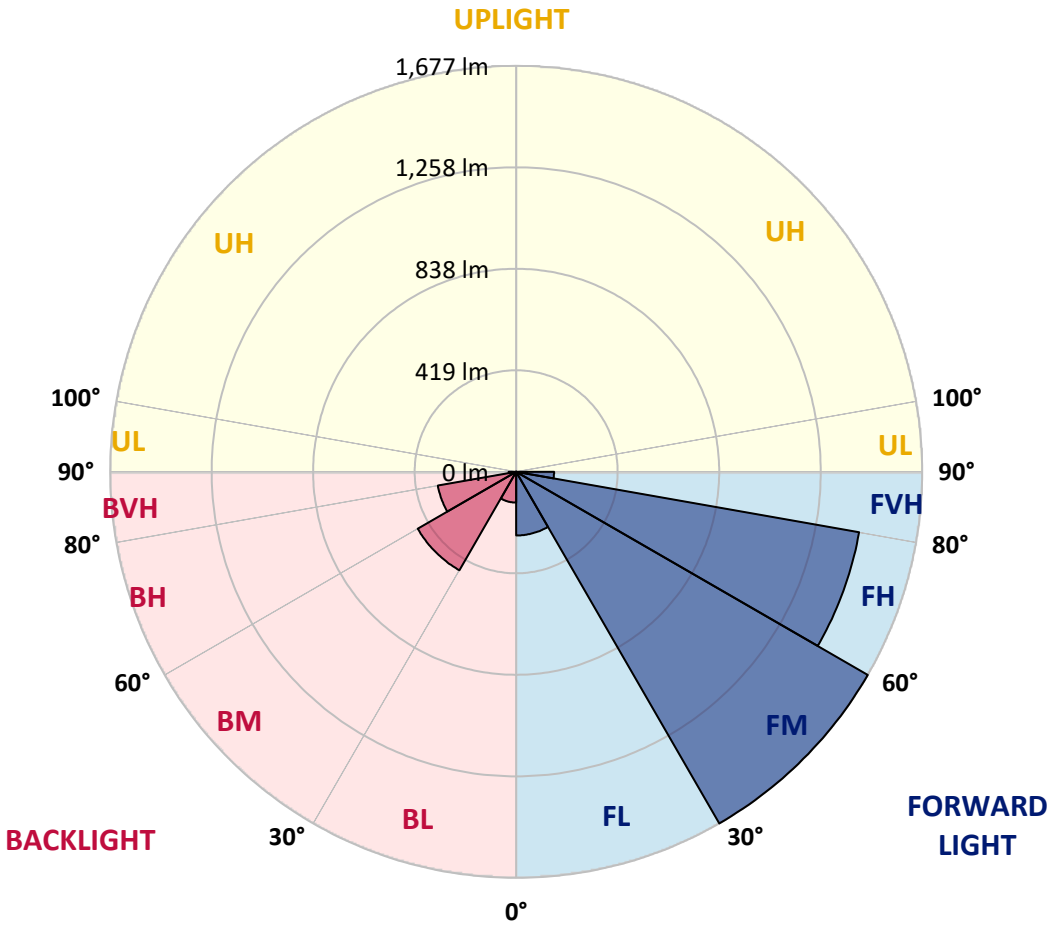
Scaled Data Report

REPORT NUMBER: P823407
CATALOG NUMBER: TTN-D2-830-U-DL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	262.8	5.9			
FM	(30°-60°)	1676.9	37.3			
FH	(60°-80°)	1438.3	32.0			G1/1800
FVH	(80°-90°)	156.6	3.5			G2/225
BL	(0°-30°)	127.2	2.8	B1/500		
BM	(30°-60°)	469.5	10.5	B1/1000		
BH	(60°-80°)	328.3	7.3	B1/500		G1/500
BVH	(80°-90°)	31.4	0.7			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2
Type IV Short



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

Scaled Data Report

REPORT NUMBER: P823407
CATALOG NUMBER: TTN-D2-830-U-DL

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	378.2	378.2	378.2	378.2	378.2	*378.2*	378.2	378.2	378.2	378.2	378.2
2.5°	405.5	405.5	405.5	405.5	401.6	*401.6*	397.7	393.8	389.9	386.0	378.2
5°	440.6	440.6	436.7	432.8	425.0	*421.1*	417.2	409.4	401.6	393.8	382.1
7.5°	456.2	456.2	456.2	452.3	440.6	*436.7*	428.9	417.2	405.5	393.8	378.2
10°	483.5	483.5	479.6	475.7	464.0	*460.1*	452.3	436.7	417.2	397.7	378.2
12.5°	518.6	514.7	510.8	506.9	495.2	*487.4*	475.7	460.1	436.7	413.3	389.9
15°	561.5	553.7	553.7	545.9	534.2	*522.5*	514.7	491.3	467.9	436.7	405.5
17.5°	608.3	604.4	600.5	592.7	581.0	*573.2*	561.5	534.2	503.0	464.0	428.9
20°	666.8	659.0	662.9	651.2	639.5	*635.6*	616.1	584.9	545.9	503.0	460.1
22.5°	737.0	729.2	729.2	717.5	709.7	*701.9*	682.4	647.3	596.6	549.8	495.2
25°	815.0	807.2	807.2	799.4	791.6	*783.8*	760.4	721.4	662.9	604.4	542.0
27.5°	900.8	893.0	893.0	889.1	869.6	*857.9*	838.4	795.5	737.0	662.9	588.8
30°	990.4	982.6	990.4	982.6	970.9	*947.6*	924.2	877.4	811.1	729.2	639.5
32.5°	1060.6	1060.6	1064.5	1072.3	1064.5	*1045.0*	1017.7	978.7	889.1	787.7	686.3
35°	1142.5	1142.5	1150.3	1162.0	1158.1	*1138.6*	1111.3	1068.4	974.8	854.0	737.0
37.5°	1232.2	1232.2	1240.0	1259.5	1251.7	*1240.0*	1220.5	1165.9	1060.6	920.3	791.6
40°	1329.7	1325.8	1333.6	1360.9	1364.8	*1349.2*	1325.8	1271.2	1150.3	1006.0	850.1
42.5°	1427.2	1423.3	1438.9	1466.2	1470.1	*1466.2*	1442.8	1380.4	1243.9	1091.8	908.6
45°	1524.7	1524.7	1548.1	1591.0	1610.4	*1602.7*	1583.2	1505.2	1360.9	1181.5	986.5
47.5°	1626.0	1626.0	1657.2	1711.8	1735.2	*1731.3*	1723.5	1629.9	1474.0	1275.1	1052.8
50°	1704.0	1704.0	1754.7	1817.1	1856.1	*1871.7*	1832.7	1746.9	1571.5	1357.0	1107.4
52.5°	1782.0	1782.0	1832.7	1930.2	1969.2	*1992.6*	1941.9	1852.2	1680.6	1431.1	1158.1
55°	1821.0	1828.8	1899.0	1992.6	2055.0	*2043.3*	2062.8	1941.9	1750.8	1485.7	1189.3
57.5°	1824.9	1836.6	1914.6	2012.1	2082.3	*2078.4*	2082.3	1973.1	1778.1	1497.4	1193.2
60°	*1805.4*	*1824.9*	*1895.1*	*1992.6*	*2058.9*	*2090.1*	*2051.1*	*1953.6*	*1762.5*	*1485.7*	*1189.3*
62.5°	1758.6	1797.6	1871.7	1945.8	2043.3	*2055.0*	2023.8	1941.9	1719.6	1474.0	1169.8
65°	1653.3	1696.2	1801.5	1887.3	1965.3	*1980.9*	1945.8	1875.6	1676.7	1419.4	1107.4
67.5°	1548.1	1575.4	1665.0	1797.6	1852.2	*1867.8*	1856.1	1774.2	1602.7	1310.2	1033.3
70°	1427.2	1462.3	1532.5	1668.9	1723.5	*1719.6*	1754.7	1661.1	1489.6	1216.6	955.4
72.5°	1263.4	1314.1	1384.3	1497.4	1563.7	*1540.3*	1594.9	1516.9	1341.4	1099.6	850.1
75°	1072.3	1115.2	1204.9	1294.6	1368.7	*1341.4*	1384.3	1329.7	1169.8	959.3	729.2
77.5°	857.9	908.6	990.4	1072.3	1123.0	*1123.0*	1142.5	1095.7	970.9	787.7	596.6
80°	635.6	682.4	756.5	815.0	861.8	*865.7*	885.2	861.8	748.7	612.2	456.2
82.5°	421.1	444.5	510.8	557.6	604.4	*600.5*	631.7	616.1	522.5	421.1	304.2
85°	179.4	195.0	249.6	288.6	331.4	*315.9*	358.7	354.8	280.8	202.8	136.5
87.5°	7.8	11.7	11.7	7.8	11.7	*3.9*	11.7	15.6	11.7	7.8	7.8
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

Scaled Data Report

REPORT NUMBER: P823407
CATALOG NUMBER: TTN-D2-830-U-DL

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	378.2	378.2	378.2	378.2	378.2	378.2	378.2	378.2	378.2	378.2	378.2
2.5°	378.2	374.3	366.5	362.6	358.7	350.9	350.9	347.0	347.0	347.0	343.1
5°	378.2	370.4	362.6	350.9	343.1	335.3	327.5	319.8	315.9	315.9	312.0
7.5°	370.4	362.6	350.9	339.2	327.5	312.0	304.2	288.6	284.7	280.8	280.8
10°	370.4	362.6	343.1	327.5	312.0	296.4	284.7	269.1	257.4	253.5	253.5
12.5°	374.3	362.6	343.1	323.6	304.2	284.7	269.1	253.5	241.8	234.0	234.0
15°	389.9	374.3	350.9	323.6	300.3	276.9	261.3	241.8	230.1	222.3	222.3
17.5°	409.4	393.8	358.7	327.5	300.3	273.0	253.5	234.0	222.3	214.5	210.6
20°	436.7	413.3	374.3	331.4	300.3	273.0	249.6	230.1	214.5	206.7	206.7
22.5°	467.9	440.6	389.9	339.2	304.2	273.0	249.6	226.2	210.6	202.8	202.8
25°	506.9	471.8	413.3	354.8	312.0	276.9	249.6	226.2	210.6	202.8	202.8
27.5°	549.8	510.8	436.7	370.4	319.8	280.8	249.6	226.2	210.6	202.8	202.8
30°	588.8	545.9	460.1	386.0	331.4	284.7	253.5	230.1	214.5	206.7	202.8
32.5°	631.7	577.1	483.5	401.6	339.2	292.5	257.4	234.0	214.5	206.7	206.7
35°	674.6	616.1	506.9	421.1	350.9	300.3	261.3	237.9	218.4	210.6	210.6
37.5°	721.4	659.0	534.2	436.7	362.6	308.1	269.1	241.8	222.3	214.5	214.5
40°	776.0	701.9	561.5	456.2	374.3	315.9	273.0	249.6	230.1	222.3	222.3
42.5°	826.7	740.9	588.8	471.8	386.0	323.6	280.8	253.5	237.9	230.1	230.1
45°	877.4	787.7	616.1	491.3	397.7	335.3	288.6	265.2	245.7	237.9	237.9
47.5°	935.9	830.6	647.3	506.9	409.4	343.1	296.4	273.0	253.5	249.6	245.7
50°	982.6	861.8	666.8	522.5	417.2	350.9	304.2	276.9	261.3	253.5	253.5
52.5°	1025.5	893.0	682.4	530.3	421.1	354.8	312.0	284.7	269.1	261.3	261.3
55°	1048.9	904.7	694.1	530.3	425.0	358.7	312.0	284.7	269.1	265.2	261.3
57.5°	1048.9	904.7	686.3	522.5	417.2	350.9	308.1	280.8	269.1	261.3	261.3
60°	*1033.3*	*893.0*	*666.8*	*506.9*	*405.5*	*339.2*	*300.3*	*273.0*	*261.3*	*257.4*	*257.4*
62.5°	1009.9	873.5	651.2	487.4	389.9	323.6	288.6	261.3	253.5	253.5	249.6
65°	947.6	815.0	616.1	460.1	366.5	304.2	273.0	249.6	241.8	237.9	234.0
67.5°	881.3	760.4	561.5	428.9	335.3	284.7	253.5	234.0	222.3	222.3	218.4
70°	815.0	701.9	510.8	386.0	300.3	261.3	230.1	210.6	202.8	202.8	202.8
72.5°	725.3	627.8	452.3	339.2	265.2	230.1	206.7	187.2	183.3	183.3	179.4
75°	620.0	534.2	382.1	288.6	222.3	195.0	175.5	156.0	156.0	156.0	156.0
77.5°	506.9	432.8	304.2	230.1	175.5	156.0	144.3	128.7	128.7	128.7	128.7
80°	382.1	319.8	222.3	167.7	128.7	113.1	105.3	97.5	101.4	101.4	97.5
82.5°	249.6	210.6	140.4	105.3	81.9	74.1	74.1	66.3	70.2	70.2	70.2
85°	109.2	93.6	58.5	46.8	39.0	39.0	39.0	35.1	39.0	39.0	39.0
87.5°	7.8	7.8	7.8	7.8	7.8	7.8	7.8	0.0	3.9	7.8	3.9
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

MCGRAW EDISON

Report Number: SP1-2411-284-4

Test Date: 11/22/2024

Luminaire Tested: TTN-D0-830-U-WQ

Data in this report applies to TT and TTN families of products

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

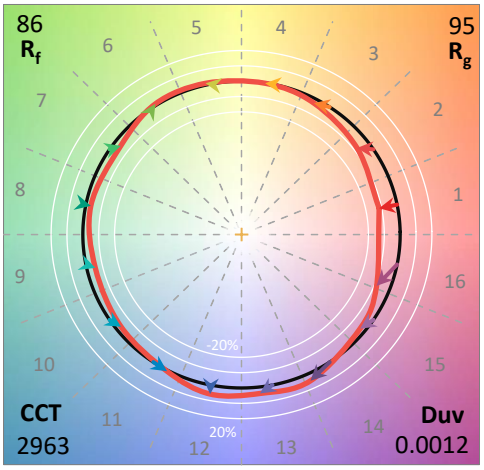
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2411-284-4
Test Lab:	COOPER LIGHTING SOLUTIONS
Photometer:	SP1 - 76IN SPHERE
Measurement Geometry:	4π
Issue Date:	11/22/2024
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	MCGRAW EDISON
Catalog Number:	**TTN-D0-830-U-WQ**
Description:	TOPTIER NANO LED PARKING GARAGE LUMINAIRE. 3000K, 80 CRI LEDS AND WIDE DISTRIBUTION

Spectral Parameters

CCT (K):	2963
CIE u':	0.2515
CIE v':	0.5238
Duv:	0.0012
CIE x:	0.4414
CIE y:	0.4086
CIE z:	0.1501
Peak Wavelength (nm):	603
Dominant Wavelength (nm):	582
Purity:	55.12798
Rf:	86.1
Rg:	94.9

CRI (Ra):	82.9
R1:	81.4
R2:	91.9
R3:	95.2
R4:	81.6
R5:	82.3
R6:	91.4
R7:	82.0
R8:	57.2
R9:	3.9
R10:	82.5
R11:	82.3
R12:	76.5
R13:	83.9
R14:	97.8
R15:	72.6



Test Conditions

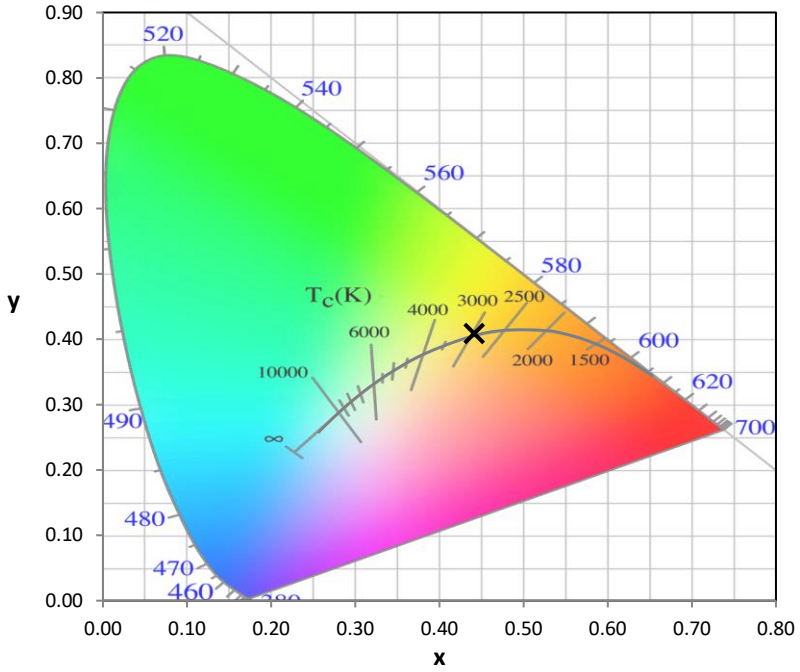
Stabilization Time:	37M
Operation Time:	1H 37M
Sphere Temperature (°C):	25.0

REPORT NUMBER: SP1-2411-284-4

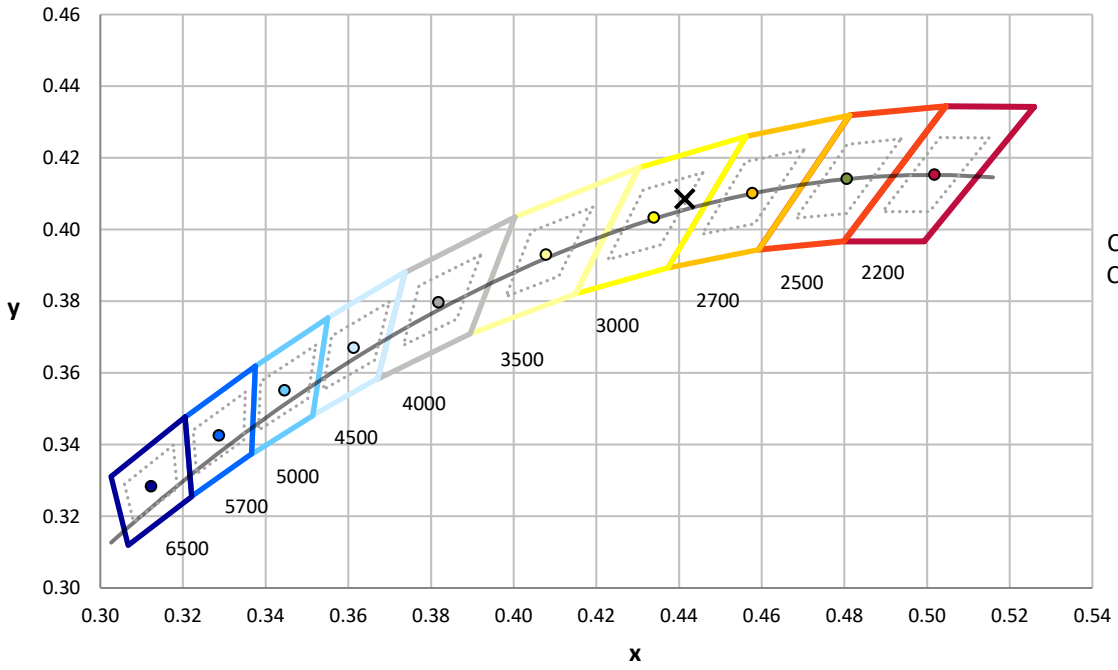
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/22/2024	10/22/2025
DC Power Source	IN0208	10/22/2024	10/22/2025
Sphere Thermometer	IN0085	10/22/2024	10/22/2025
Room Thermometer	IN0046	10/22/2024	10/22/2025

REPORT NUMBER: SP1-2411-284-4

CIE 1931 Chromaticity Diagram



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

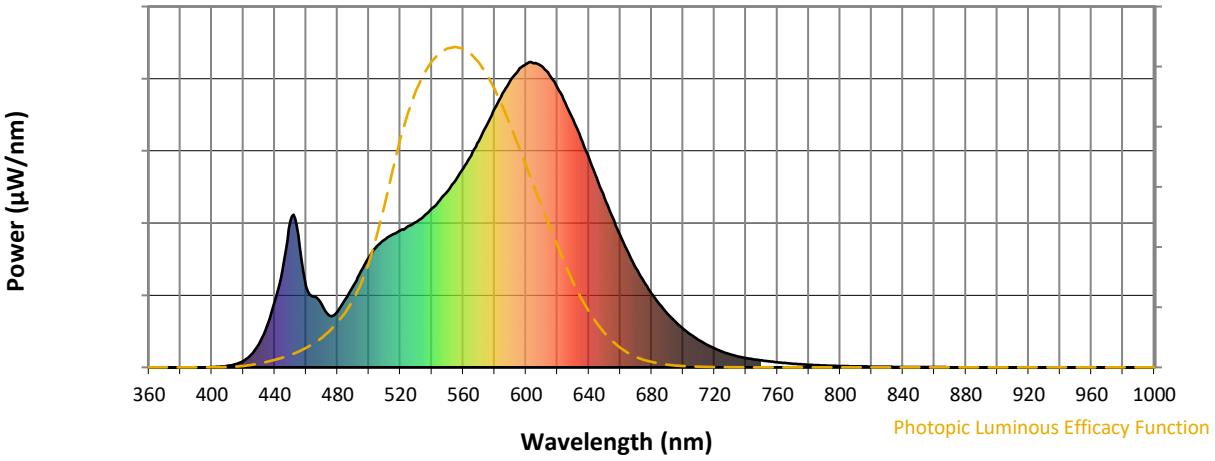


CCT = 2963K
CIE x = 0.4414
CIE y = 0.4086
Duv = 0.0012

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2411-284-4

Photopic Flux vs. Wavelength

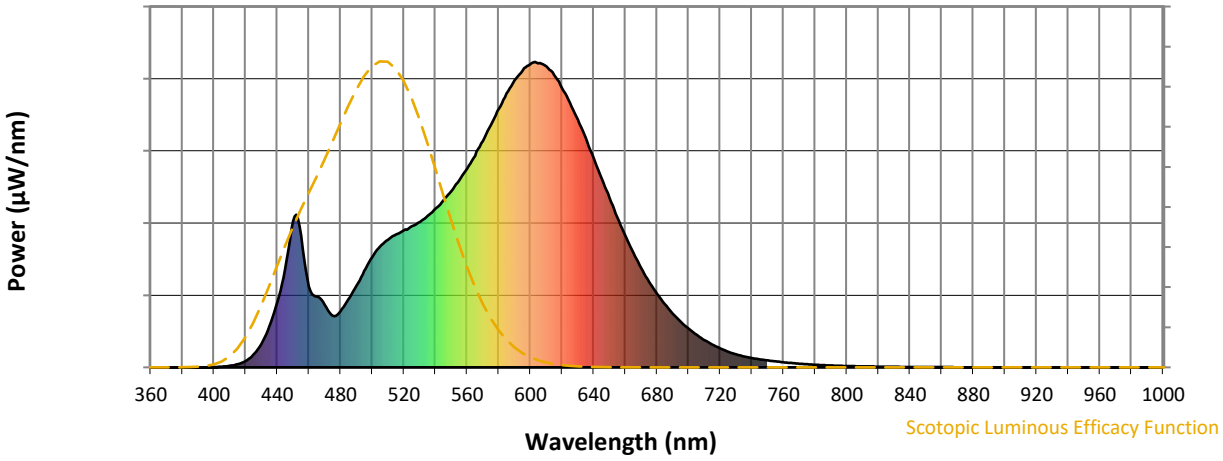


Photopic Lumens: NR

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	267	NR	620	915	NR	750	23	NR	880	0	NR
365	0	NR	495	315	NR	625	866	NR	755	20	NR	885	0	NR
370	0	NR	500	360	NR	630	811	NR	760	17	NR	890	0	NR
375	0	NR	505	396	NR	635	750	NR	765	14	NR	895	0	NR
380	0	NR	510	418	NR	640	686	NR	770	12	NR	900	0	NR
385	0	NR	515	435	NR	645	619	NR	775	10	NR	905	0	NR
390	0	NR	520	448	NR	650	554	NR	780	9	NR	910	0	NR
395	0	NR	525	462	NR	655	491	NR	785	7	NR	915	0	NR
400	1	NR	530	476	NR	660	431	NR	790	6	NR	920	0	NR
405	2	NR	535	495	NR	665	376	NR	795	5	NR	925	0	NR
410	5	NR	540	520	NR	670	325	NR	800	4	NR	930	0	NR
415	10	NR	545	547	NR	675	280	NR	805	4	NR	935	0	NR
420	21	NR	550	576	NR	680	241	NR	810	3	NR	940	0	NR
425	42	NR	555	612	NR	685	207	NR	815	3	NR	945	0	NR
430	77	NR	560	651	NR	690	176	NR	820	2	NR	950	0	NR
435	135	NR	565	693	NR	695	149	NR	825	2	NR	955	0	NR
440	215	NR	570	741	NR	700	127	NR	830	2	NR	960	0	NR
445	321	NR	575	793	NR	705	107	NR	835	2	NR	965	0	NR
450	479	NR	580	847	NR	710	89	NR	840	1	NR	970	0	NR
455	432	NR	585	897	NR	715	75	NR	845	1	NR	975	0	NR
460	265	NR	590	940	NR	720	62	NR	850	1	NR	980	0	NR
465	231	NR	595	971	NR	725	51	NR	855	1	NR	985	0	NR
470	204	NR	600	993	NR	730	43	NR	860	1	NR	990	0	NR
475	168	NR	605	996	NR	735	36	NR	865	1	NR	995	0	NR
480	183	NR	610	986	NR	740	31	NR	870	1	NR	1000	0	NR
485	223	NR	615	957	NR	745	26	NR	875	0	NR			

REPORT NUMBER: SP1-2411-284-4

Scotopic Flux vs. Wavelength

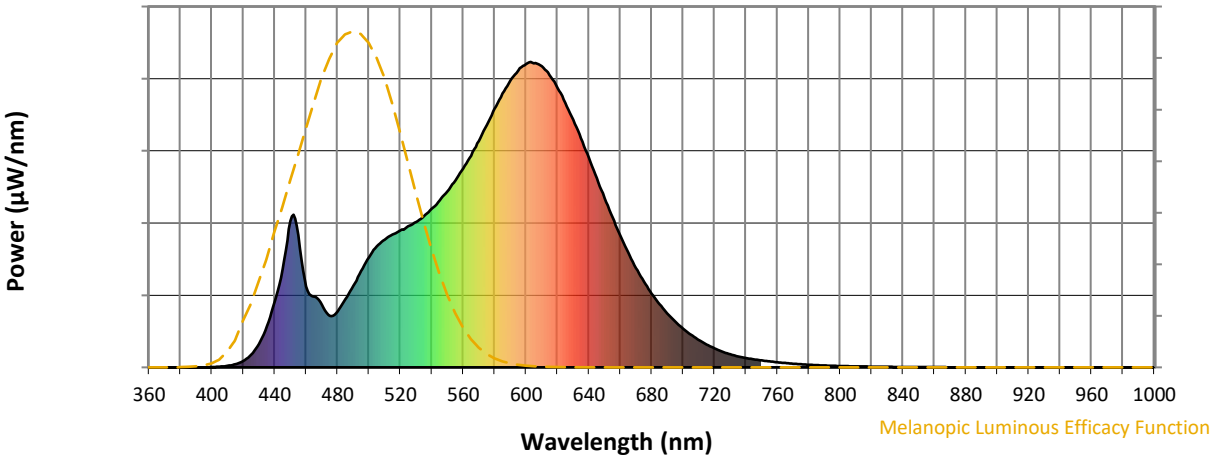


Scotopic Lumens: NR **S/P: 1.34**

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	267	NR	620	915	NR	750	23	NR	880	0	NR
365	0	NR	495	315	NR	625	866	NR	755	20	NR	885	0	NR
370	0	NR	500	360	NR	630	811	NR	760	17	NR	890	0	NR
375	0	NR	505	396	NR	635	750	NR	765	14	NR	895	0	NR
380	0	NR	510	418	NR	640	686	NR	770	12	NR	900	0	NR
385	0	NR	515	435	NR	645	619	NR	775	10	NR	905	0	NR
390	0	NR	520	448	NR	650	554	NR	780	9	NR	910	0	NR
395	0	NR	525	462	NR	655	491	NR	785	7	NR	915	0	NR
400	1	NR	530	476	NR	660	431	NR	790	6	NR	920	0	NR
405	2	NR	535	495	NR	665	376	NR	795	5	NR	925	0	NR
410	5	NR	540	520	NR	670	325	NR	800	4	NR	930	0	NR
415	10	NR	545	547	NR	675	280	NR	805	4	NR	935	0	NR
420	21	NR	550	576	NR	680	241	NR	810	3	NR	940	0	NR
425	42	NR	555	612	NR	685	207	NR	815	3	NR	945	0	NR
430	77	NR	560	651	NR	690	176	NR	820	2	NR	950	0	NR
435	135	NR	565	693	NR	695	149	NR	825	2	NR	955	0	NR
440	215	NR	570	741	NR	700	127	NR	830	2	NR	960	0	NR
445	321	NR	575	793	NR	705	107	NR	835	2	NR	965	0	NR
450	479	NR	580	847	NR	710	89	NR	840	1	NR	970	0	NR
455	432	NR	585	897	NR	715	75	NR	845	1	NR	975	0	NR
460	265	NR	590	940	NR	720	62	NR	850	1	NR	980	0	NR
465	231	NR	595	971	NR	725	51	NR	855	1	NR	985	0	NR
470	204	NR	600	993	NR	730	43	NR	860	1	NR	990	0	NR
475	168	NR	605	996	NR	735	36	NR	865	1	NR	995	0	NR
480	183	NR	610	986	NR	740	31	NR	870	1	NR	1000	0	NR
485	223	NR	615	957	NR	745	26	NR	875	0	NR			

REPORT NUMBER: SP1-2411-284-4

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.58**

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	267	NR	620	915	NR	750	23	NR	880	0	NR
365	0	NR	495	315	NR	625	866	NR	755	20	NR	885	0	NR
370	0	NR	500	360	NR	630	811	NR	760	17	NR	890	0	NR
375	0	NR	505	396	NR	635	750	NR	765	14	NR	895	0	NR
380	0	NR	510	418	NR	640	686	NR	770	12	NR	900	0	NR
385	0	NR	515	435	NR	645	619	NR	775	10	NR	905	0	NR
390	0	NR	520	448	NR	650	554	NR	780	9	NR	910	0	NR
395	0	NR	525	462	NR	655	491	NR	785	7	NR	915	0	NR
400	1	NR	530	476	NR	660	431	NR	790	6	NR	920	0	NR
405	2	NR	535	495	NR	665	376	NR	795	5	NR	925	0	NR
410	5	NR	540	520	NR	670	325	NR	800	4	NR	930	0	NR
415	10	NR	545	547	NR	675	280	NR	805	4	NR	935	0	NR
420	21	NR	550	576	NR	680	241	NR	810	3	NR	940	0	NR
425	42	NR	555	612	NR	685	207	NR	815	3	NR	945	0	NR
430	77	NR	560	651	NR	690	176	NR	820	2	NR	950	0	NR
435	135	NR	565	693	NR	695	149	NR	825	2	NR	955	0	NR
440	215	NR	570	741	NR	700	127	NR	830	2	NR	960	0	NR
445	321	NR	575	793	NR	705	107	NR	835	2	NR	965	0	NR
450	479	NR	580	847	NR	710	89	NR	840	1	NR	970	0	NR
455	432	NR	585	897	NR	715	75	NR	845	1	NR	975	0	NR
460	265	NR	590	940	NR	720	62	NR	850	1	NR	980	0	NR
465	231	NR	595	971	NR	725	51	NR	855	1	NR	985	0	NR
470	204	NR	600	993	NR	730	43	NR	860	1	NR	990	0	NR
475	168	NR	605	996	NR	735	36	NR	865	1	NR	995	0	NR
480	183	NR	610	986	NR	740	31	NR	870	1	NR	1000	0	NR
485	223	NR	615	957	NR	745	26	NR	875	0	NR			

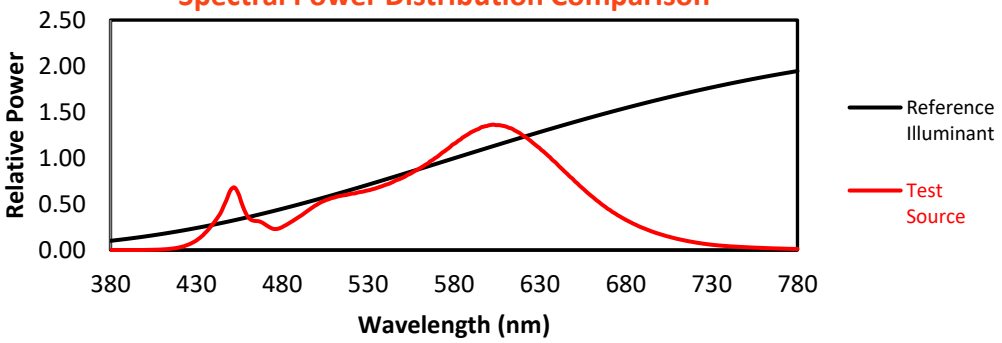
REPORT NUMBER: SP1-2411-284-4

TM-30-18

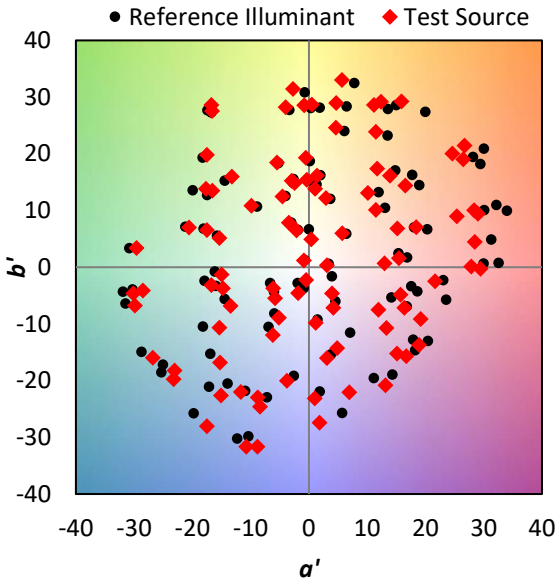
Summary

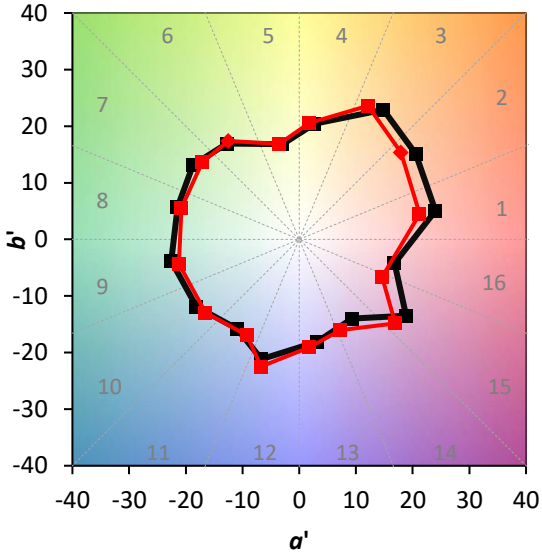
R_f = 86.1
R_g = 94.9
CIE R_a = 82.9
R_9 = 3.9

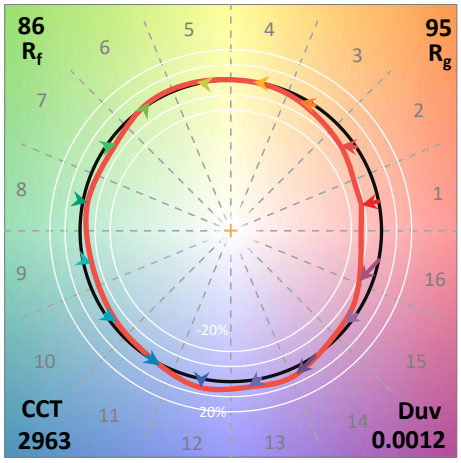
Spectral Power Distribution Comparison

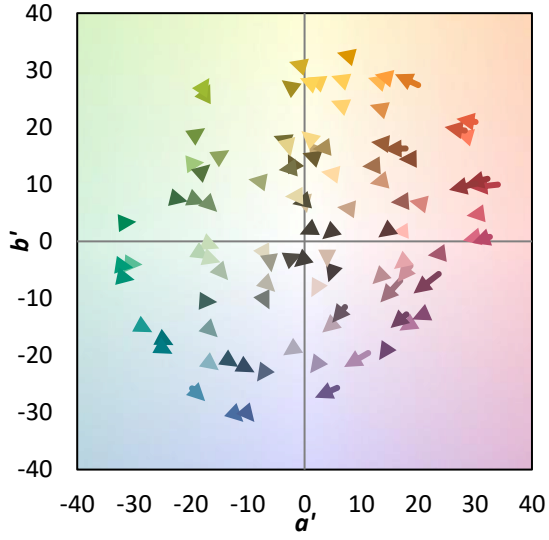


Color Vector Graphics







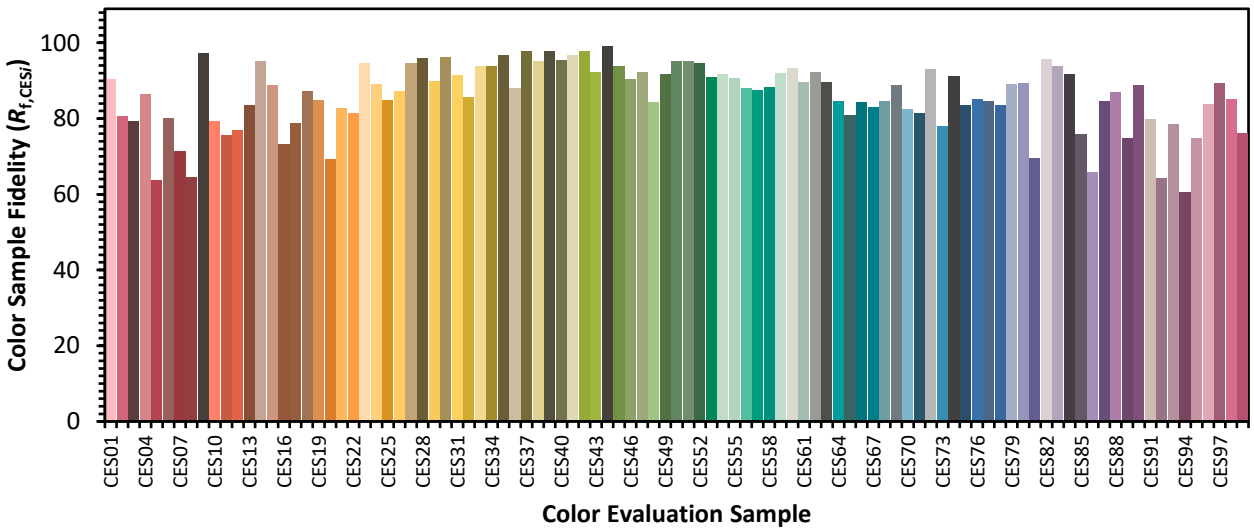


REPORT NUMBER: SP1-2411-284-4

TM-30-18

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

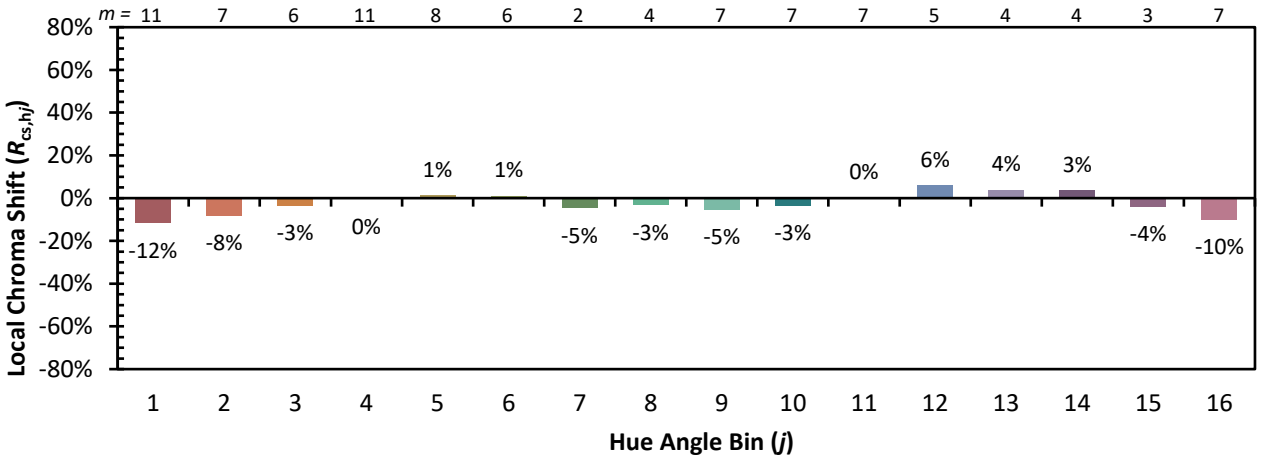
CES01 = 86	CES26 = 87	CES51 = 95	CES76 = 85
CES02 = 63	CES27 = 95	CES52 = 95	CES77 = 85
CES03 = 31	CES28 = 96	CES53 = 91	CES78 = 83
CES04 = 70	CES29 = 90	CES54 = 92	CES79 = 89
CES05 = 50	CES30 = 96	CES55 = 91	CES80 = 89
CES06 = 51	CES31 = 92	CES56 = 88	CES81 = 70
CES07 = 42	CES32 = 86	CES57 = 87	CES82 = 96
CES08 = 41	CES33 = 94	CES58 = 88	CES83 = 94
CES09 = 29	CES34 = 94	CES59 = 92	CES84 = 92
CES10 = 76	CES35 = 97	CES60 = 93	CES85 = 76
CES11 = 59	CES36 = 88	CES61 = 90	CES86 = 66
CES12 = 65	CES37 = 98	CES62 = 92	CES87 = 85
CES13 = 44	CES38 = 95	CES63 = 90	CES88 = 87
CES14 = 74	CES39 = 98	CES64 = 85	CES89 = 75
CES15 = 72	CES40 = 96	CES65 = 81	CES90 = 89
CES16 = 48	CES41 = 97	CES66 = 84	CES91 = 80
CES17 = 50	CES42 = 98	CES67 = 83	CES92 = 64
CES18 = 57	CES43 = 92	CES68 = 85	CES93 = 79
CES19 = 72	CES44 = 99	CES69 = 89	CES94 = 61
CES20 = 67	CES45 = 94	CES70 = 83	CES95 = 75
CES21 = 87	CES46 = 91	CES71 = 81	CES96 = 84
CES22 = 79	CES47 = 92	CES72 = 93	CES97 = 89
CES23 = 92	CES48 = 84	CES73 = 78	CES98 = 85
CES24 = 91	CES49 = 92	CES74 = 91	CES99 = 76
CES25 = 72	CES50 = 95	CES75 = 84	

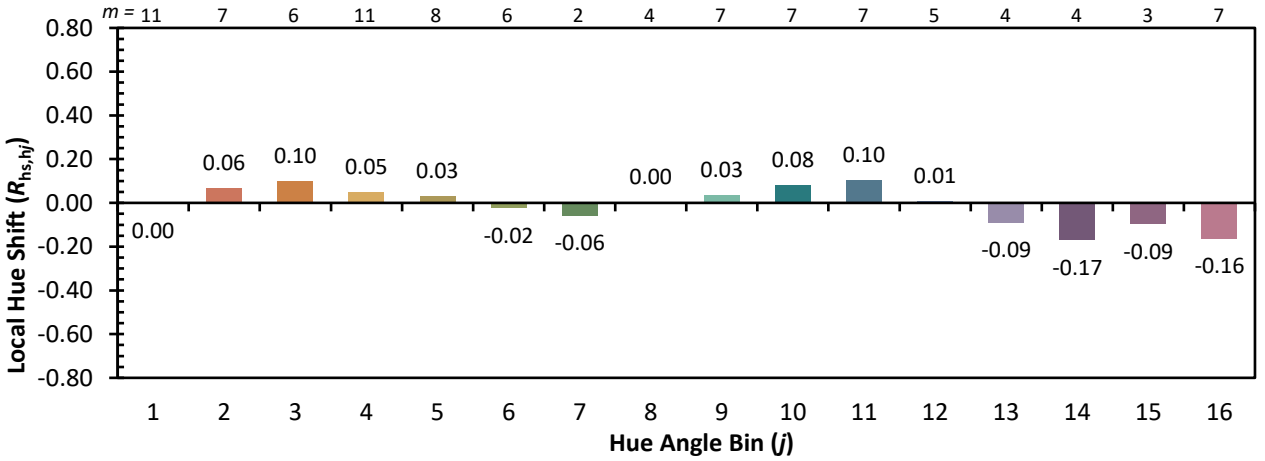


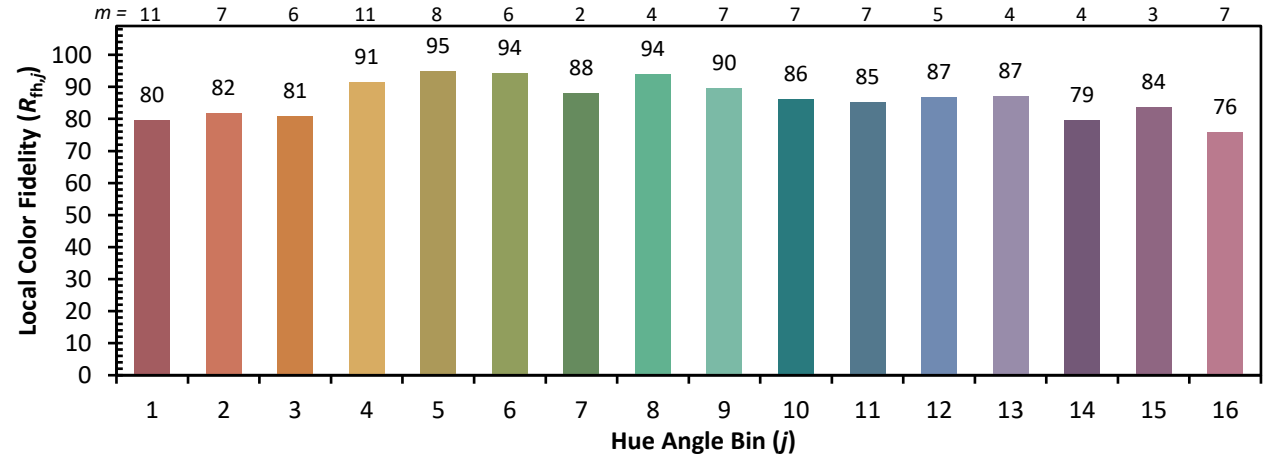
REPORT NUMBER: SP1-2411-284-4

TM-30-18

Color Rendition by Hue-Angle Bin



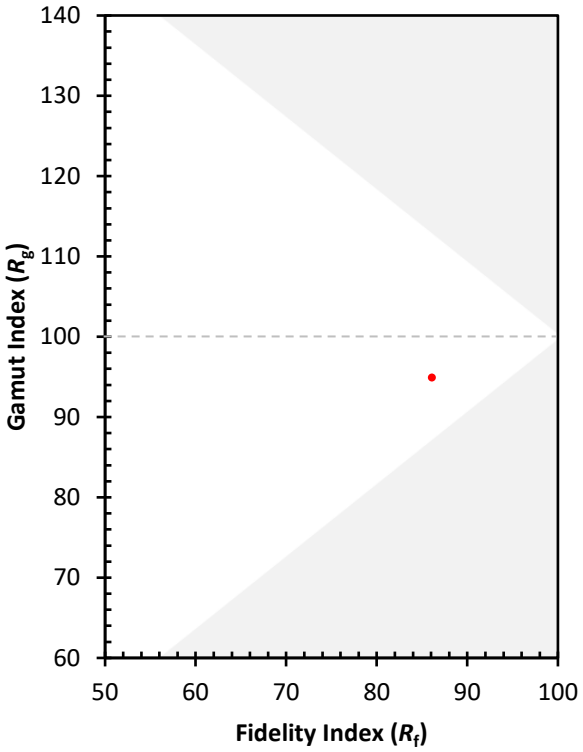


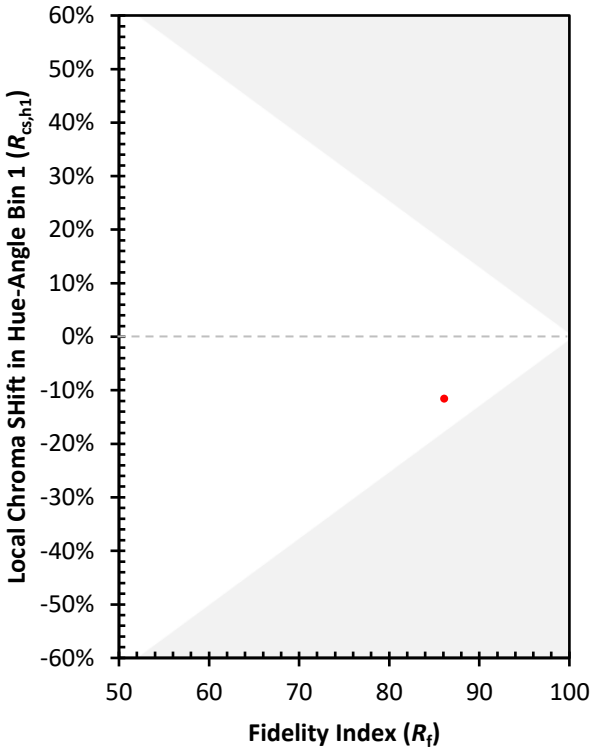


REPORT NUMBER: SP1-2411-284-4

TM-30-18

Measure Comparisons





(END OF REPORT)