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: P833955

Luminaire Tested: **TTN-D3-750-U-MQ-UPL3**

Issue Date: 5/15/2024

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:	P833955
	REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (G3-2308-121-4) AND
Test Lab:	INNOVATION CENTER
Issue Date:	5/15/2024
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	McGRAW-EDISON
Catalog Number:	TTN-D3-750-U-MQ-UPL3
Description:	TOPTIER NANO LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
	5000K, 70 CRI LEDS AND MEDIUM DISTRIBUTION
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	8189.6 lumens
Efficiency:	N/A
Efficacy:	123.7 lumens/watt
Luminous Opening:	Vertical Cylinder (Dia: 0.71' x H: 0.1')
IES Classification:	Type V - Short
BUG Rating:	B3 - U4 - G2

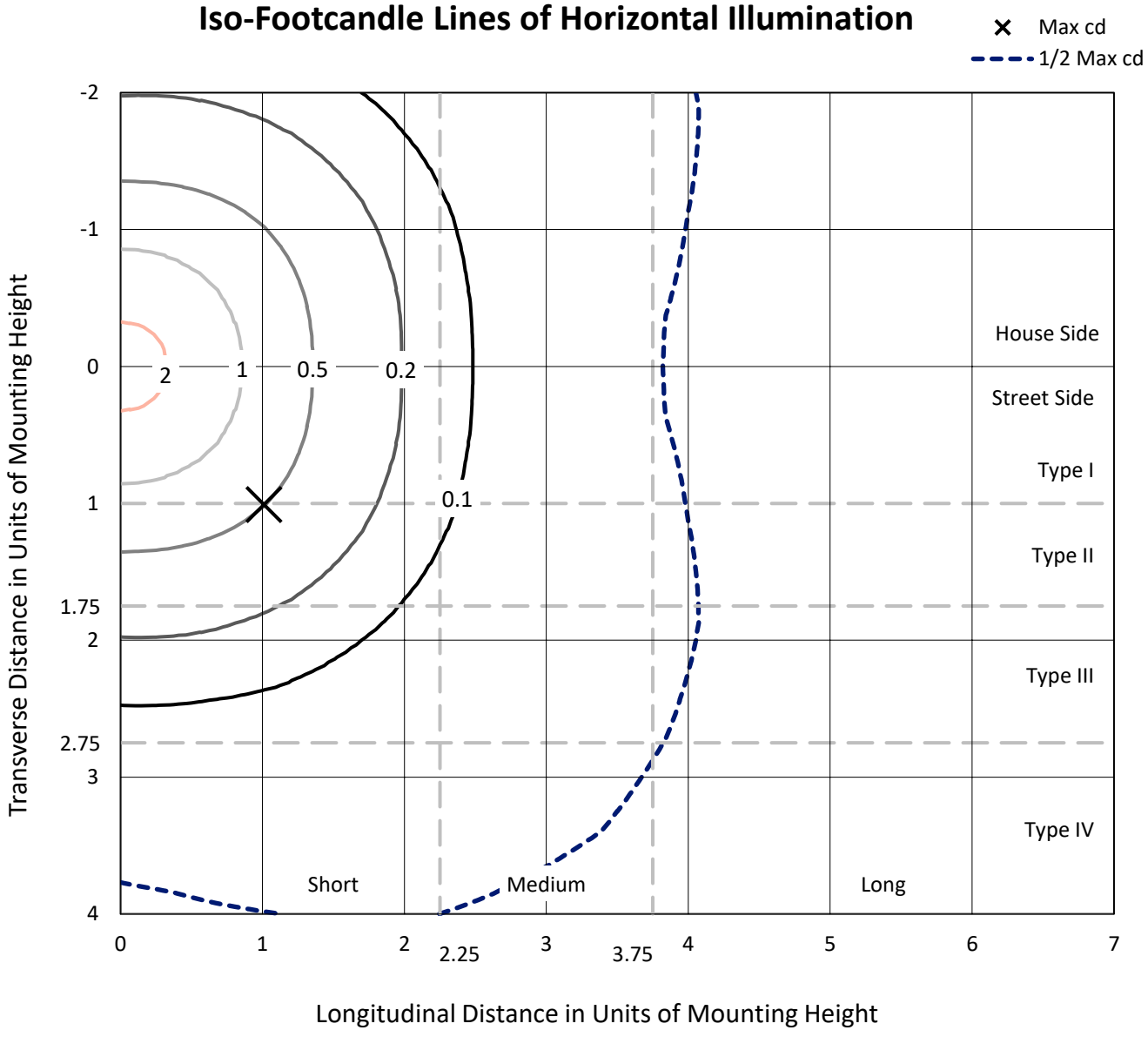
Input Watts (W):	66.2
Input Voltage (V):	NR
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	24 FT

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

Scaled Data Report

REPORT NUMBER: P833955
CATALOG NUMBER: TTN-D3-750-U-MQ-UPL3

Iso-Footcandle Lines of Horizontal Illumination



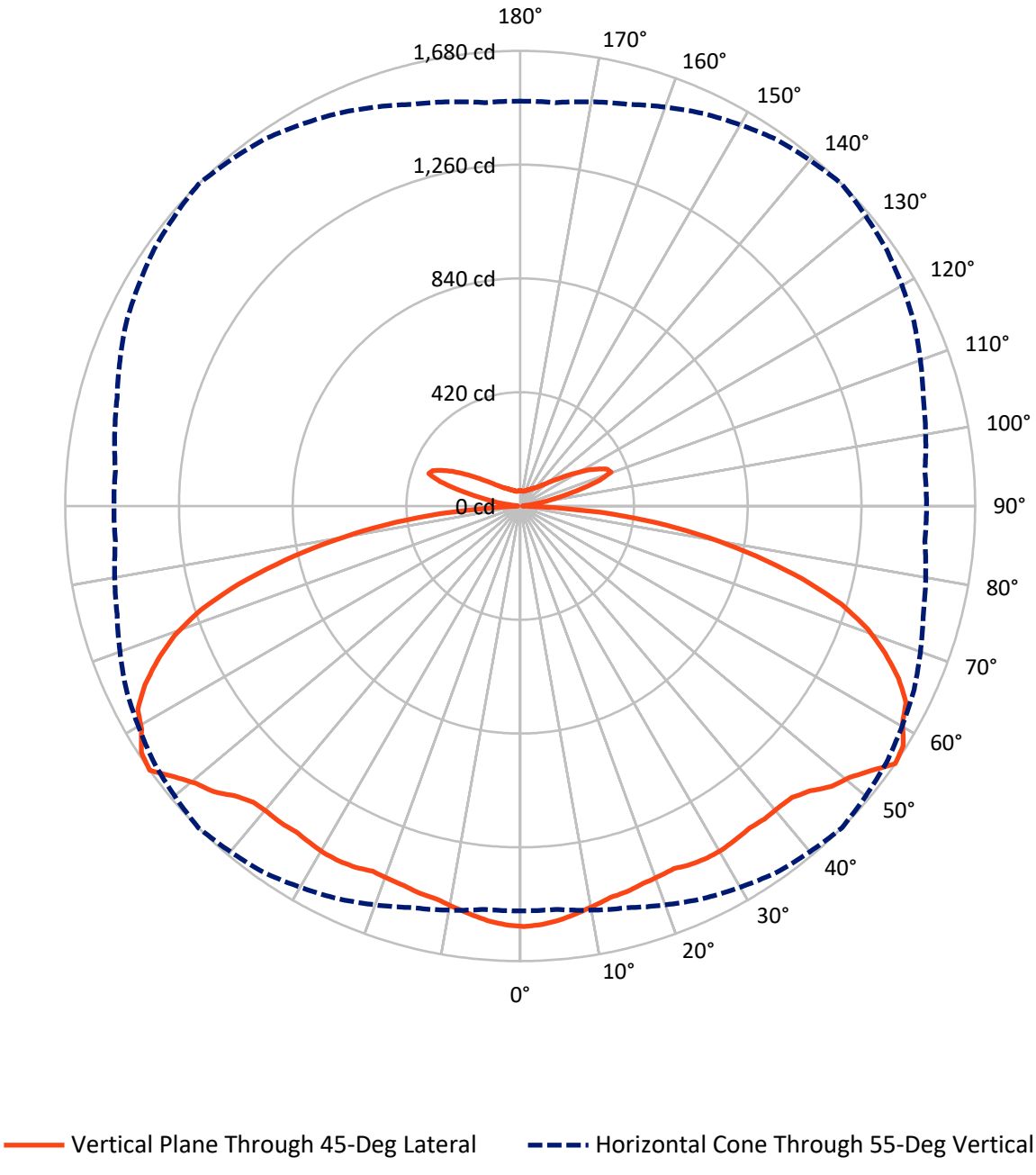
Based on 25 foot mounting height. Maximum calculated value = 2.5 fc
Type V - Short - N/A

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

Scaled Data Report

REPORT NUMBER: P833955
CATALOG NUMBER: TTN-D3-750-U-MQ-UPL3

Luminous Intensity Polar Plot



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

Scaled Data Report

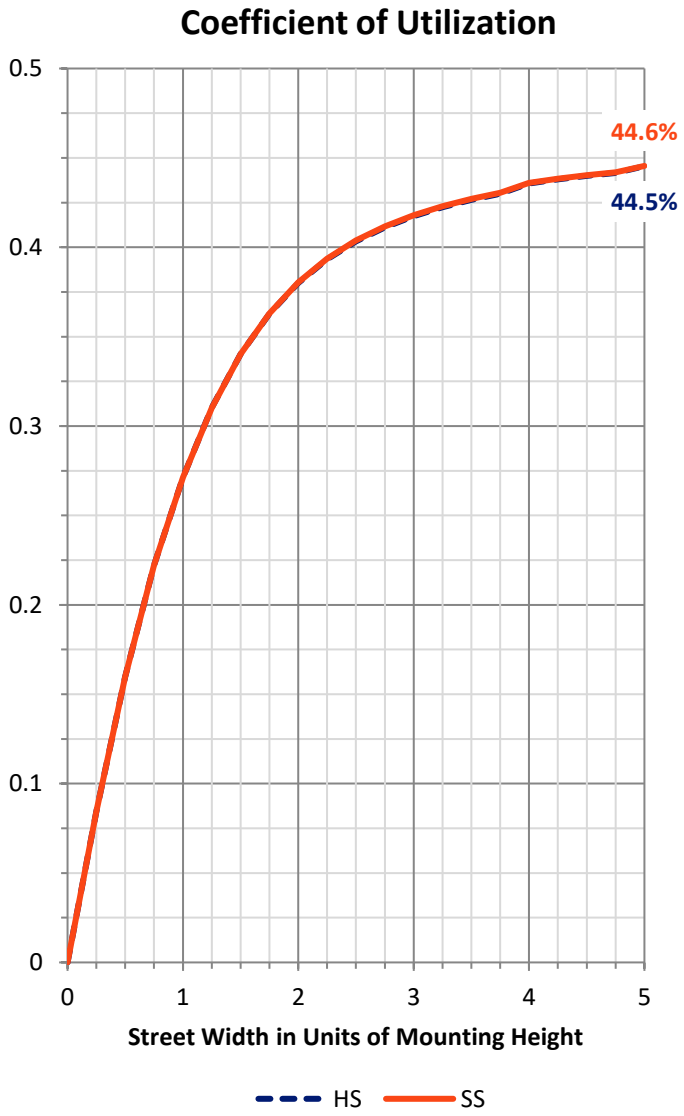
REPORT NUMBER: P833955
CATALOG NUMBER: TTN-D3-750-U-MQ-UPL3

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3689.0	405.8	4094.8
	% Fixture	45.0	5.0	50.0
Street Side	Lumens	3689.0	405.8	4094.8
	% Fixture	45.0	5.0	50.0
Total	Lumens	7378.1	811.5	8189.6
	% Fixture	90.1	9.9	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.3	1.8
10°-20°	417.0	5.1
20°-30°	674.0	8.2
30°-40°	912.1	11.1
40°-50°	1142.4	13.9
50°-60°	1400.0	17.1
60°-70°	1403.4	17.1
70°-80°	1012.7	12.4
80°-90°	271.1	3.3
90°-100°	18.1	0.2
100°-110°	184.1	2.2
110°-120°	269.1	3.3
120°-130°	156.2	1.9
130°-140°	82.7	1.0
140°-150°	49.1	0.6
150°-160°	30.3	0.4
160°-170°	16.5	0.2
170°-180°	5.4	0.1
0°-90°	7378.1	90.1
0°-180°	8189.6	100.0



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

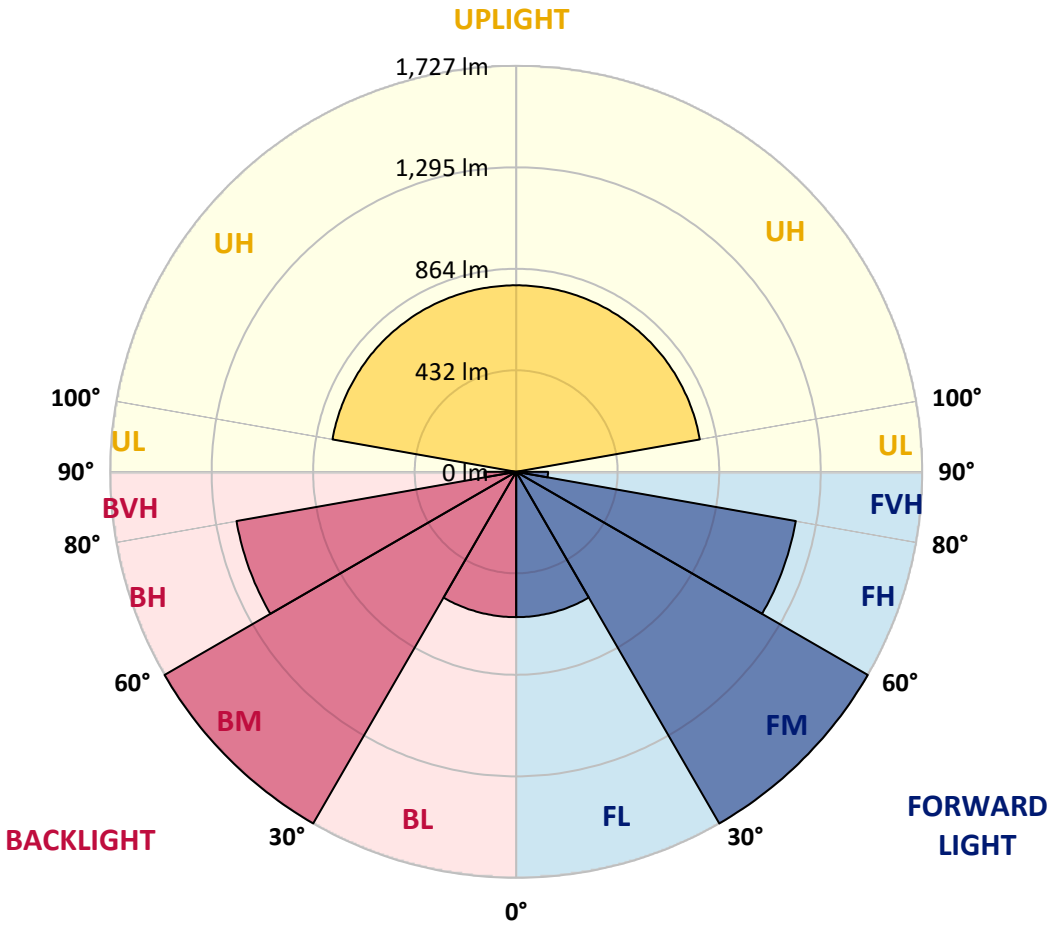
Scaled Data Report

REPORT NUMBER: P833955
CATALOG NUMBER: TTN-D3-750-U-MQ-UPL3

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	618.2	7.5			
FM	(30°-60°)	1727.2	21.1			
FH	(60°-80°)	1208.1	14.8			G1/1800
FVH	(80°-90°)	135.6	1.7			G2/225
BL	(0°-30°)	618.2	7.5	B2/1000		
BM	(30°-60°)	1727.2	21.1	B2/2500		
BH	(60°-80°)	1208.1	14.8	B3/2500		G1/1800
BVH	(80°-90°)	135.6	1.7			G2/225
UL	(90°-100°)	18.1	0.2		U2/50	
UH	(100°-180°)	793.4	9.7		U4/1000	

BUG Rating: B3-U4-G2
Type V Short



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

Scaled Data Report

REPORT NUMBER: P833955
CATALOG NUMBER: TTN-D3-750-U-MQ-UPL3

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1552.1	1552.1	1552.1	1552.1	1552.1	1552.1	1552.1	1552.1	1552.1	1552.1	1552.1
2.5°	1546.3	1546.3	1546.3	1540.5	1546.3	1546.3	1546.3	1546.3	1546.3	1546.3	1546.3
5°	1534.7	1534.7	1534.7	1534.7	1534.7	1534.7	1534.7	1534.7	1534.7	1534.7	1534.7
7.5°	1517.3	1517.3	1517.3	1517.3	1517.3	1517.3	1517.3	1517.3	1517.3	1517.3	1517.3
10°	1494.2	1494.2	1494.2	1494.2	1499.9	1499.9	1499.9	1499.9	1494.2	1494.2	1494.2
12.5°	1476.8	1476.8	1476.8	1482.6	1482.6	1482.6	1482.6	1482.6	1482.6	1482.6	1476.8
15°	1471.0	1471.0	1471.0	1471.0	1476.8	1476.8	1476.8	1476.8	1471.0	1471.0	1471.0
17.5°	1459.4	1459.4	1459.4	1465.2	1465.2	1465.2	1465.2	1465.2	1459.4	1459.4	1459.4
20°	1447.8	1447.8	1453.6	1453.6	1459.4	1459.4	1459.4	1453.6	1453.6	1447.8	1453.6
22.5°	1447.8	1447.8	1447.8	1453.6	1453.6	1453.6	1453.6	1447.8	1447.8	1447.8	1447.8
25°	1447.8	1447.8	1453.6	1459.4	1459.4	1465.2	1459.4	1453.6	1447.8	1447.8	1447.8
27.5°	1453.6	1453.6	1459.4	1465.2	1465.2	1471.0	1465.2	1459.4	1453.6	1453.6	1453.6
30°	1453.6	1453.6	1459.4	1465.2	1465.2	1471.0	1465.2	1459.4	1453.6	1453.6	1453.6
32.5°	1442.0	1447.8	1453.6	1459.4	1465.2	1465.2	1465.2	1459.4	1453.6	1447.8	1447.8
35°	1436.2	1442.0	1447.8	1453.6	1459.4	1459.4	1459.4	1453.6	1447.8	1442.0	1442.0
37.5°	1430.4	1430.4	1442.0	1447.8	1453.6	1465.2	1459.4	1447.8	1442.0	1436.2	1436.2
40°	1424.7	1430.4	1436.2	1447.8	1453.6	1465.2	1459.4	1447.8	1436.2	1430.4	1430.4
42.5°	1424.7	1424.7	1436.2	1447.8	1459.4	1471.0	1465.2	1453.6	1436.2	1430.4	1424.7
45°	1430.4	1436.2	1453.6	1476.8	1488.4	1499.9	1494.2	1476.8	1447.8	1436.2	1430.4
47.5°	1453.6	1459.4	1476.8	1499.9	1528.9	1546.3	1528.9	1499.9	1476.8	1459.4	1453.6
50°	1465.2	1471.0	1499.9	1528.9	1569.4	1575.2	1569.4	1528.9	1499.9	1471.0	1471.0
52.5°	1488.4	1488.4	1523.1	1575.2	1610.0	1621.6	1610.0	1581.0	1523.1	1494.2	1488.4
55°	1494.2	1494.2	1534.7	1598.4	1650.5	1679.5	1650.5	1604.2	1540.5	1499.9	1499.9
57.5°	1459.4	1471.0	1523.1	1586.8	1650.5	1667.9	1650.5	1592.6	1528.9	1476.8	1471.0
60°	1418.9	1436.2	1482.6	1557.9	1604.2	1621.6	1610.0	1557.9	1488.4	1436.2	1430.4
62.5°	1378.3	1401.5	1453.6	1511.5	1581.0	1598.4	1581.0	1511.5	1453.6	1401.5	1378.3
65°	1291.5	1314.6	1389.9	1459.4	1523.1	1534.7	1528.9	1459.4	1389.9	1314.6	1303.0
67.5°	1204.6	1222.0	1274.1	1384.1	1436.2	1453.6	1442.0	1378.3	1279.9	1222.0	1216.2
70°	1111.9	1129.3	1175.6	1279.9	1332.0	1361.0	1337.8	1279.9	1175.6	1129.3	1123.5
72.5°	990.3	1013.5	1065.6	1158.3	1210.4	1239.3	1216.2	1158.3	1065.6	1007.7	996.1
75°	845.5	862.9	926.6	1001.9	1054.0	1077.2	1059.8	1007.7	926.6	862.9	857.1
77.5°	689.2	706.5	764.4	839.7	868.7	891.9	874.5	833.9	764.4	706.5	700.7
80°	521.2	538.6	590.7	648.6	677.6	700.7	683.4	642.8	590.7	538.6	532.8
82.5°	341.7	359.1	405.4	451.7	480.7	503.8	486.5	445.9	411.2	359.1	353.3
85°	144.8	162.2	202.7	249.0	272.2	295.4	278.0	243.2	202.7	167.9	162.2
87.5°	11.6	17.4	17.4	23.2	17.4	29.0	17.4	17.4	17.4	17.4	17.4
90°	6.9	6.9	8.3	8.3	8.3	8.3	8.3	8.3	8.3	6.9	6.9
92.5°	6.9	6.9	6.9	9.7	11.1	9.7	11.1	8.3	8.3	6.9	6.9
95°	8.3	8.3	9.7	12.5	15.3	16.7	16.7	9.7	9.7	8.3	8.3
97.5°	11.1	12.5	12.5	15.3	25.0	45.8	27.8	13.9	13.9	12.5	11.1
100°	18.0	19.4	19.4	34.7	73.6	98.6	70.8	36.1	26.4	19.4	19.4
102.5°	58.3	61.1	75.0	112.5	166.6	151.3	127.7	120.8	83.3	66.6	63.9
105°	148.6	147.2	158.3	187.4	233.3	229.1	211.0	191.6	165.2	152.7	152.7
107.5°	195.8	195.8	205.5	230.5	265.2	309.6	313.8	248.5	218.0	204.1	202.7
110°	220.8	220.8	229.1	249.9	295.7	358.2	355.4	306.8	269.4	251.3	248.5

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

Scaled Data Report

REPORT NUMBER: P833955
CATALOG NUMBER: TTN-D3-750-U-MQ-UPL3

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	226.3	227.7	238.8	270.7	320.7	*348.5*	336.0	316.6	299.9	286.0	283.2
115°	234.6	234.6	247.1	277.7	305.5	*316.6*	302.7	287.4	276.3	270.7	273.5
117.5°	231.9	236.0	238.8	255.5	273.5	*281.8*	274.9	254.1	245.8	243.0	238.8
120°	215.2	215.2	218.0	226.3	236.0	*240.2*	237.4	223.5	216.6	215.2	212.4
122.5°	191.6	193.0	191.6	195.8	202.7	*206.9*	204.1	193.0	190.2	190.2	187.4
125°	168.0	168.0	166.6	169.4	173.6	*172.2*	173.6	168.0	166.6	166.6	165.2
127.5°	151.3	149.9	147.2	148.6	149.9	*149.9*	151.3	145.8	147.2	148.6	147.2
130°	134.7	134.7	131.9	131.9	131.9	*129.1*	131.9	129.1	130.5	131.9	133.3
132.5°	119.4	119.4	115.2	113.9	113.9	*113.9*	115.2	113.9	116.6	119.4	119.4
135°	106.9	106.9	102.7	104.1	104.1	*102.7*	104.1	102.7	105.5	106.9	106.9
137.5°	97.2	97.2	94.4	94.4	94.4	*93.0*	94.4	94.4	95.8	98.6	100.0
140°	88.9	88.9	87.5	87.5	86.1	*87.5*	87.5	87.5	88.9	90.2	90.2
142.5°	84.7	83.3	81.9	80.5	81.9	*81.9*	81.9	80.5	81.9	84.7	84.7
145°	77.8	77.8	76.4	76.4	76.4	*77.8*	76.4	76.4	77.8	77.8	79.1
147.5°	73.6	73.6	72.2	73.6	73.6	*73.6*	73.6	72.2	73.6	73.6	75.0
150°	72.2	70.8	69.4	70.8	70.8	*69.4*	69.4	69.4	69.4	70.8	70.8
152.5°	68.0	68.0	66.6	68.0	66.6	*66.6*	66.6	66.6	66.6	68.0	69.4
155°	65.3	65.3	63.9	65.3	65.3	*65.3*	65.3	65.3	65.3	65.3	65.3
157.5°	62.5	63.9	62.5	62.5	62.5	*62.5*	62.5	62.5	62.5	63.9	63.9
160°	61.1	61.1	61.1	61.1	59.7	*59.7*	59.7	61.1	61.1	61.1	62.5
162.5°	59.7	59.7	59.7	59.7	58.3	*58.3*	58.3	58.3	59.7	59.7	61.1
165°	59.7	58.3	58.3	58.3	56.9	*56.9*	56.9	56.9	58.3	59.7	58.3
167.5°	56.9	56.9	56.9	56.9	56.9	*55.5*	55.5	56.9	56.9	56.9	58.3
170°	56.9	56.9	55.5	55.5	55.5	*55.5*	55.5	55.5	55.5	55.5	56.9
172.5°	56.9	56.9	56.9	56.9	55.5	*55.5*	55.5	55.5	55.5	56.9	56.9
175°	56.9	56.9	56.9	56.9	55.5	*55.5*	55.5	56.9	56.9	56.9	55.5
177.5°	56.9	56.9	56.9	56.9	55.5	*56.9*	56.9	56.9	56.9	56.9	56.9
180°	56.9	56.9	56.9	56.9	56.9	*56.9*	56.9	56.9	56.9	56.9	56.9

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: SP1-2411-284-3

Test Date: 11/21/2024

Luminaire Tested: TTN-D0-750-U-WQ

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

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

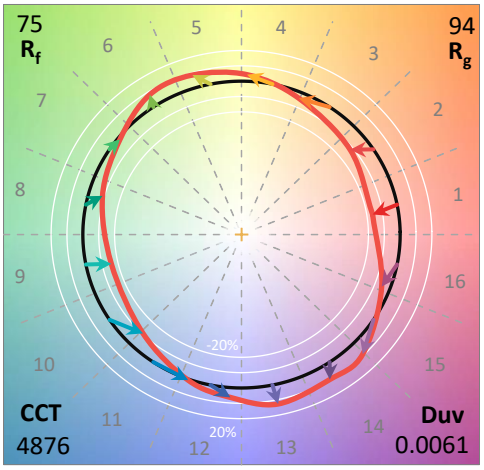
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2411-284-3
Test Lab:	COOPER LIGHTING SOLUTIONS
Photometer:	SP1 - 76IN SPHERE
Measurement Geometry:	4π
Issue Date:	11/21/2024
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	MCGRAW EDISON
Catalog Number:	**TTN-D0-750-U-WQ**
Description:	TOPTIER NANO LED PARKING GARAGE LUMINAIRE. 5000K, 70 CRI LEDS AND WIDE DISTRIBUTION

Spectral Parameters

CCT (K):	4876
CIE u':	0.2086
CIE v':	0.4932
Duv:	0.0061
CIE x:	0.3502
CIE y:	0.3680
CIE z:	0.2818
Peak Wavelength (nm):	451
Dominant Wavelength (nm):	569
Purity:	15.51324
Rf:	74.6
Rg:	94.4

CRI (Ra):	72.6
R1:	69.5
R2:	77.0
R3:	82.2
R4:	72.6
R5:	69.3
R6:	67.6
R7:	83.7
R8:	58.6
R9:	-24.6
R10:	44.8
R11:	68.2
R12:	36.1
R13:	70.5
R14:	89.9
R15:	63.1



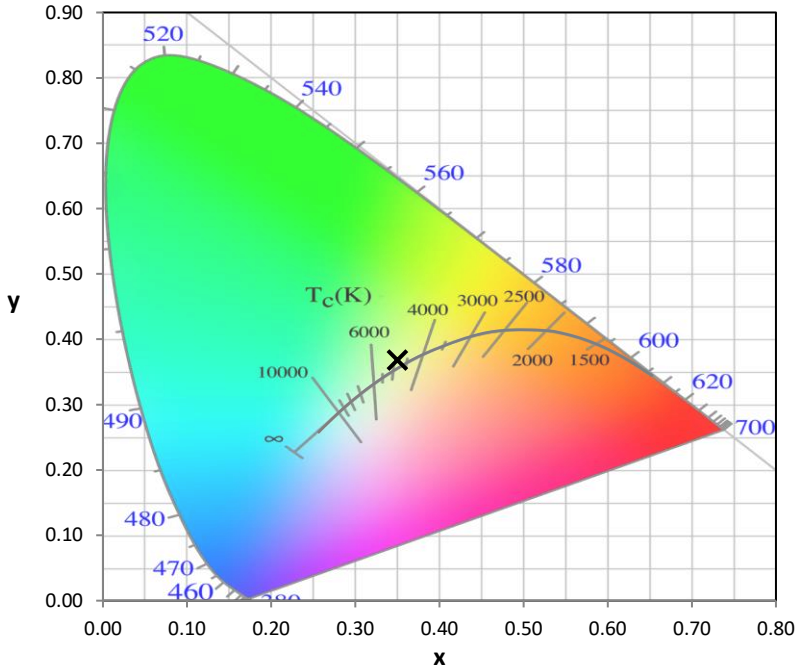
Test Conditions

Stabilization Time:	51M
Operation Time:	1H 51M
Sphere Temperature (°C):	24.9

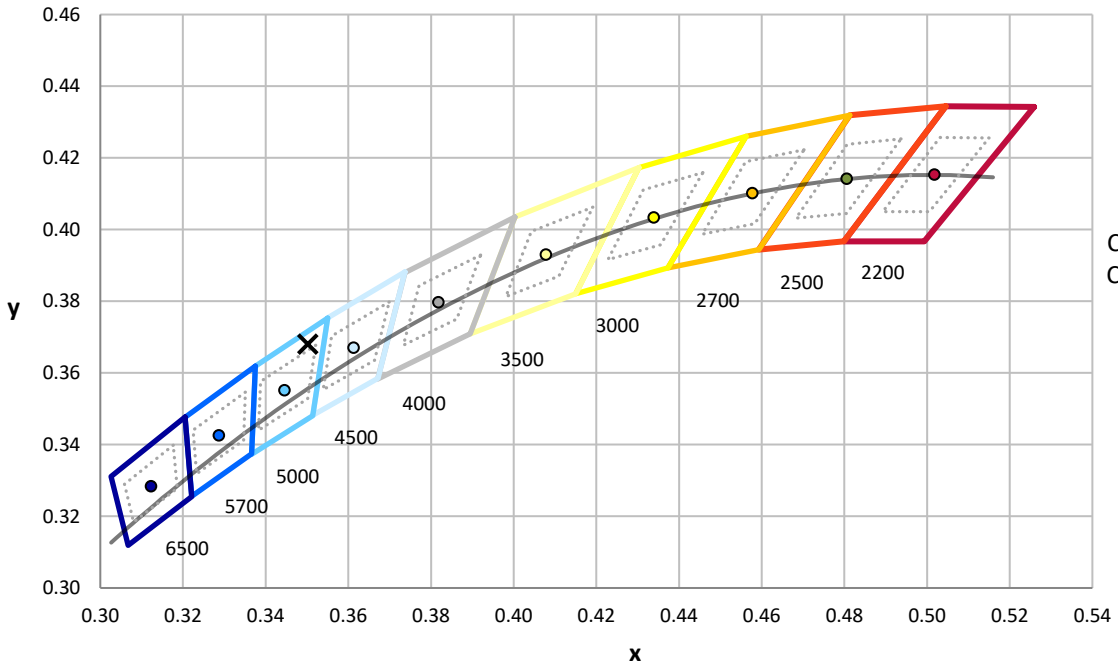
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/22/2024	10/22/2025
DC Power Source	IN0208	10/22/2024	10/22/2025
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2411-284-3

CIE 1931 Chromaticity Diagram



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

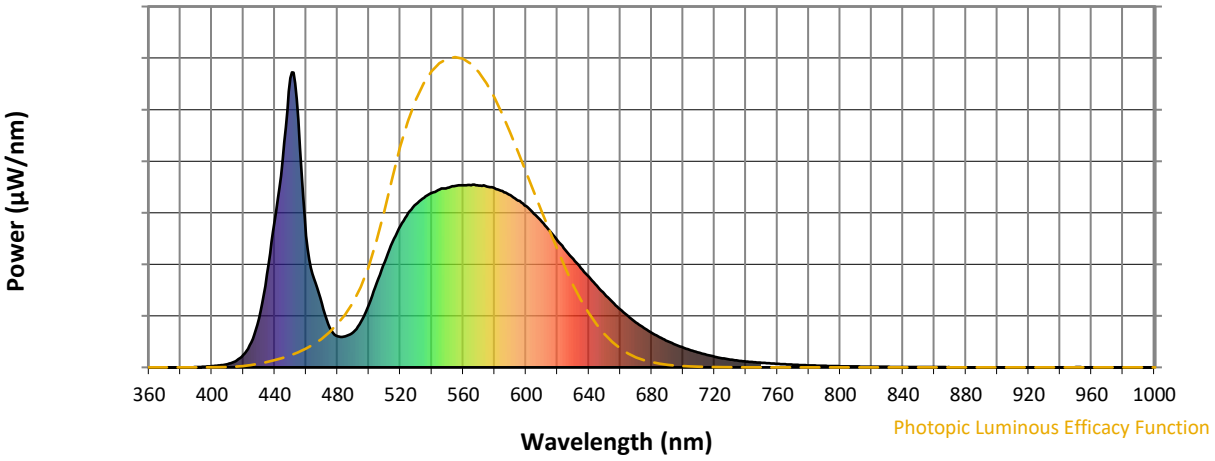


CCT = 4876K
CIE x = 0.3502
CIE y = 0.3680
Duv = 0.0061

Point lies inside the ANSI 5000K 7-step quadrangle

REPORT NUMBER: SP1-2411-284-3

Photopic Flux vs. Wavelength

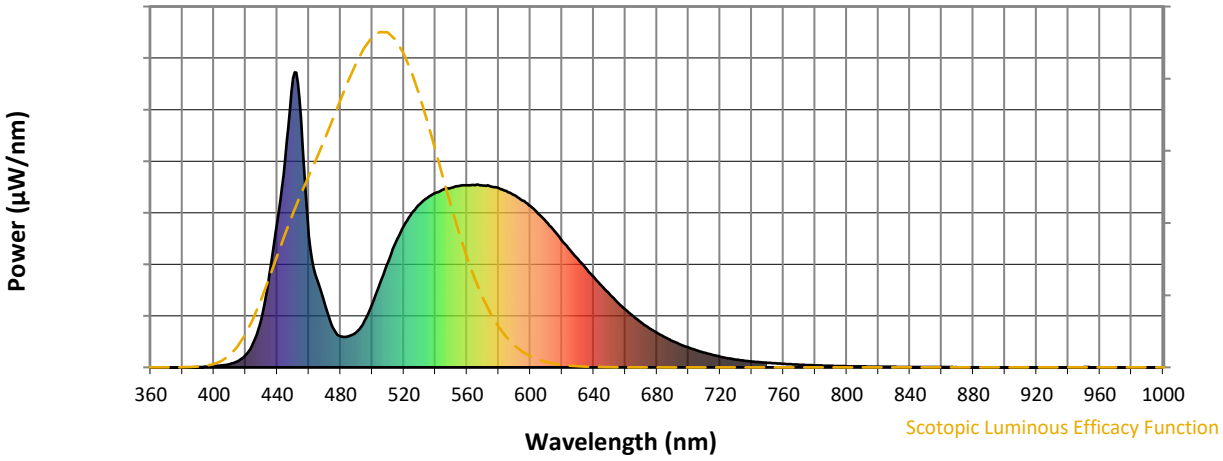


Photopic Lumens: NR

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	119	NR	620	430	NR	750	16	NR	880	0	NR
365	0	NR	495	156	NR	625	398	NR	755	14	NR	885	0	NR
370	0	NR	500	214	NR	630	368	NR	760	12	NR	890	0	NR
375	0	NR	505	286	NR	635	336	NR	765	11	NR	895	0	NR
380	0	NR	510	357	NR	640	306	NR	770	9	NR	900	0	NR
385	0	NR	515	425	NR	645	276	NR	775	8	NR	905	0	NR
390	1	NR	520	480	NR	650	248	NR	780	7	NR	910	0	NR
395	2	NR	525	523	NR	655	221	NR	785	6	NR	915	0	NR
400	4	NR	530	554	NR	660	196	NR	790	5	NR	920	0	NR
405	7	NR	535	575	NR	665	173	NR	795	4	NR	925	0	NR
410	11	NR	540	592	NR	670	152	NR	800	4	NR	930	0	NR
415	21	NR	545	603	NR	675	133	NR	805	3	NR	935	0	NR
420	42	NR	550	609	NR	680	117	NR	810	3	NR	940	0	NR
425	85	NR	555	615	NR	685	102	NR	815	3	NR	945	0	NR
430	165	NR	560	617	NR	690	89	NR	820	2	NR	950	1	NR
435	316	NR	565	617	NR	695	77	NR	825	2	NR	955	0	NR
440	497	NR	570	616	NR	700	67	NR	830	2	NR	960	0	NR
445	702	NR	575	613	NR	705	58	NR	835	2	NR	965	0	NR
450	981	NR	580	607	NR	710	50	NR	840	1	NR	970	0	NR
455	840	NR	585	598	NR	715	43	NR	845	1	NR	975	0	NR
460	446	NR	590	583	NR	720	36	NR	850	1	NR	980	0	NR
465	300	NR	595	566	NR	725	31	NR	855	1	NR	985	0	NR
470	215	NR	600	546	NR	730	26	NR	860	1	NR	990	0	NR
475	135	NR	605	521	NR	735	23	NR	865	1	NR	995	0	NR
480	105	NR	610	494	NR	740	20	NR	870	1	NR	1000	0	NR
485	106	NR	615	463	NR	745	18	NR	875	0	NR			

REPORT NUMBER: SP1-2411-284-3

Scotopic Flux vs. Wavelength

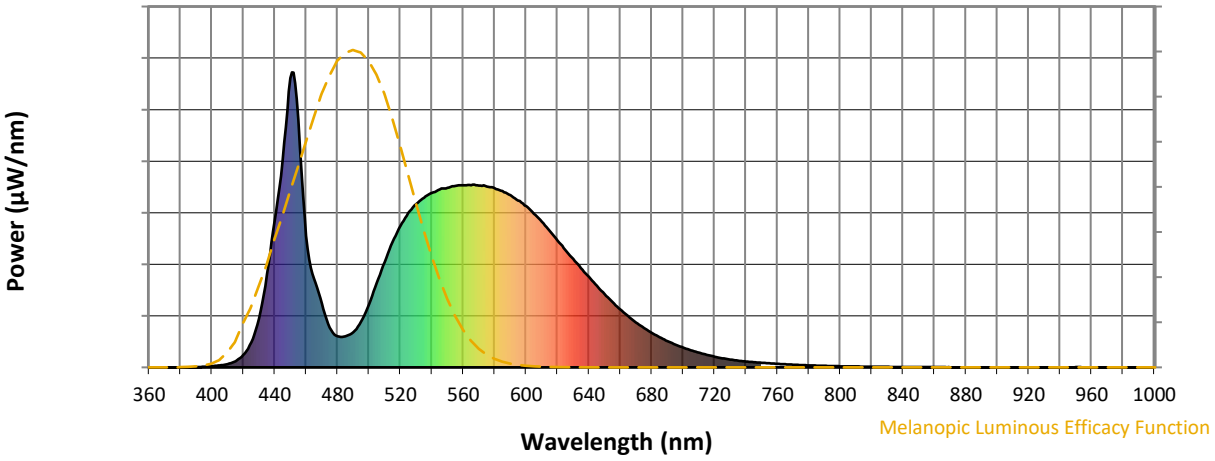


Scotopic Lumens: NR **S/P: 1.74**

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	119	NR	620	430	NR	750	16	NR	880	0	NR
365	0	NR	495	156	NR	625	398	NR	755	14	NR	885	0	NR
370	0	NR	500	214	NR	630	368	NR	760	12	NR	890	0	NR
375	0	NR	505	286	NR	635	336	NR	765	11	NR	895	0	NR
380	0	NR	510	357	NR	640	306	NR	770	9	NR	900	0	NR
385	0	NR	515	425	NR	645	276	NR	775	8	NR	905	0	NR
390	1	NR	520	480	NR	650	248	NR	780	7	NR	910	0	NR
395	2	NR	525	523	NR	655	221	NR	785	6	NR	915	0	NR
400	4	NR	530	554	NR	660	196	NR	790	5	NR	920	0	NR
405	7	NR	535	575	NR	665	173	NR	795	4	NR	925	0	NR
410	11	NR	540	592	NR	670	152	NR	800	4	NR	930	0	NR
415	21	NR	545	603	NR	675	133	NR	805	3	NR	935	0	NR
420	42	NR	550	609	NR	680	117	NR	810	3	NR	940	0	NR
425	85	NR	555	615	NR	685	102	NR	815	3	NR	945	0	NR
430	165	NR	560	617	NR	690	89	NR	820	2	NR	950	1	NR
435	316	NR	565	617	NR	695	77	NR	825	2	NR	955	0	NR
440	497	NR	570	616	NR	700	67	NR	830	2	NR	960	0	NR
445	702	NR	575	613	NR	705	58	NR	835	2	NR	965	0	NR
450	981	NR	580	607	NR	710	50	NR	840	1	NR	970	0	NR
455	840	NR	585	598	NR	715	43	NR	845	1	NR	975	0	NR
460	446	NR	590	583	NR	720	36	NR	850	1	NR	980	0	NR
465	300	NR	595	566	NR	725	31	NR	855	1	NR	985	0	NR
470	215	NR	600	546	NR	730	26	NR	860	1	NR	990	0	NR
475	135	NR	605	521	NR	735	23	NR	865	1	NR	995	0	NR
480	105	NR	610	494	NR	740	20	NR	870	1	NR	1000	0	NR
485	106	NR	615	463	NR	745	18	NR	875	0	NR			

REPORT NUMBER: SP1-2411-284-3

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 3.51**

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	119	NR	620	430	NR	750	16	NR	880	0	NR
365	0	NR	495	156	NR	625	398	NR	755	14	NR	885	0	NR
370	0	NR	500	214	NR	630	368	NR	760	12	NR	890	0	NR
375	0	NR	505	286	NR	635	336	NR	765	11	NR	895	0	NR
380	0	NR	510	357	NR	640	306	NR	770	9	NR	900	0	NR
385	0	NR	515	425	NR	645	276	NR	775	8	NR	905	0	NR
390	1	NR	520	480	NR	650	248	NR	780	7	NR	910	0	NR
395	2	NR	525	523	NR	655	221	NR	785	6	NR	915	0	NR
400	4	NR	530	554	NR	660	196	NR	790	5	NR	920	0	NR
405	7	NR	535	575	NR	665	173	NR	795	4	NR	925	0	NR
410	11	NR	540	592	NR	670	152	NR	800	4	NR	930	0	NR
415	21	NR	545	603	NR	675	133	NR	805	3	NR	935	0	NR
420	42	NR	550	609	NR	680	117	NR	810	3	NR	940	0	NR
425	85	NR	555	615	NR	685	102	NR	815	3	NR	945	0	NR
430	165	NR	560	617	NR	690	89	NR	820	2	NR	950	1	NR
435	316	NR	565	617	NR	695	77	NR	825	2	NR	955	0	NR
440	497	NR	570	616	NR	700	67	NR	830	2	NR	960	0	NR
445	702	NR	575	613	NR	705	58	NR	835	2	NR	965	0	NR
450	981	NR	580	607	NR	710	50	NR	840	1	NR	970	0	NR
455	840	NR	585	598	NR	715	43	NR	845	1	NR	975	0	NR
460	446	NR	590	583	NR	720	36	NR	850	1	NR	980	0	NR
465	300	NR	595	566	NR	725	31	NR	855	1	NR	985	0	NR
470	215	NR	600	546	NR	730	26	NR	860	1	NR	990	0	NR
475	135	NR	605	521	NR	735	23	NR	865	1	NR	995	0	NR
480	105	NR	610	494	NR	740	20	NR	870	1	NR	1000	0	NR
485	106	NR	615	463	NR	745	18	NR	875	0	NR			

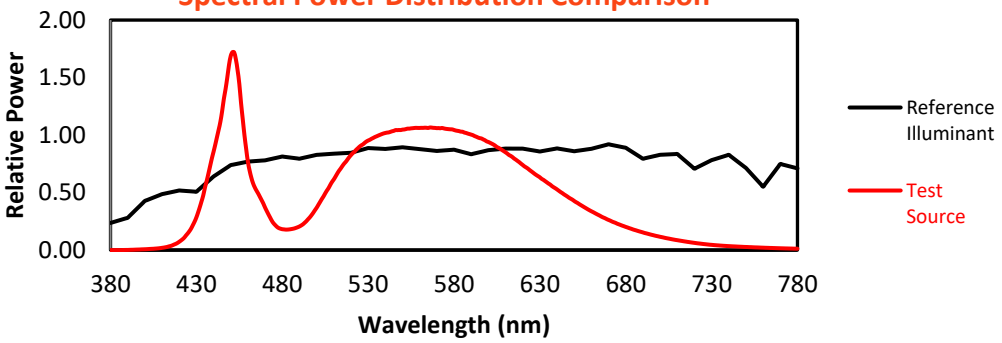
REPORT NUMBER: SP1-2411-284-3

TM-30-18

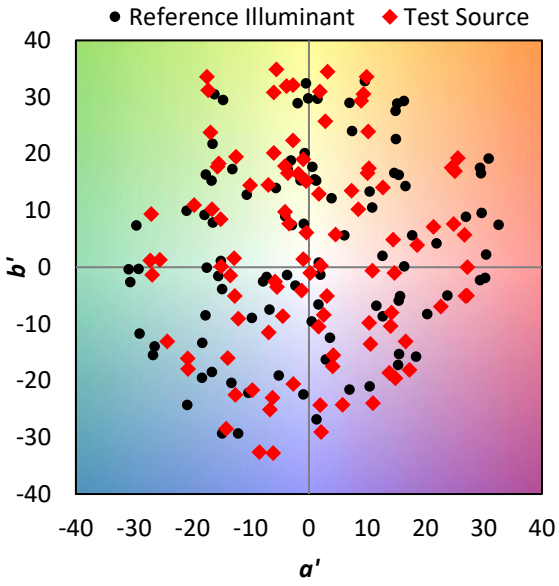
Summary

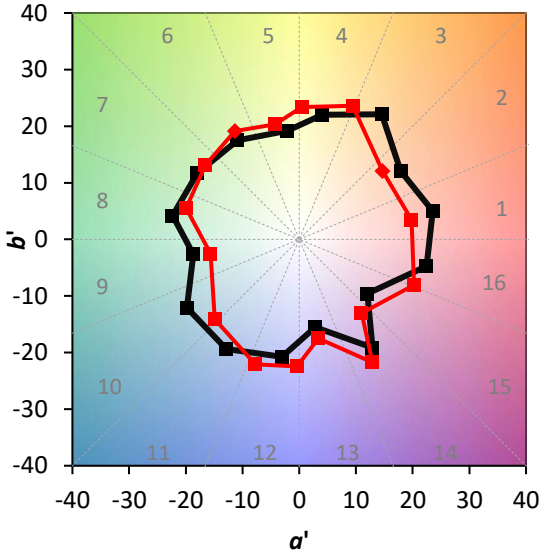
R_f = 74.6
R_g = 94.4
CIE R_a = 72.6
R_9 = -24.6

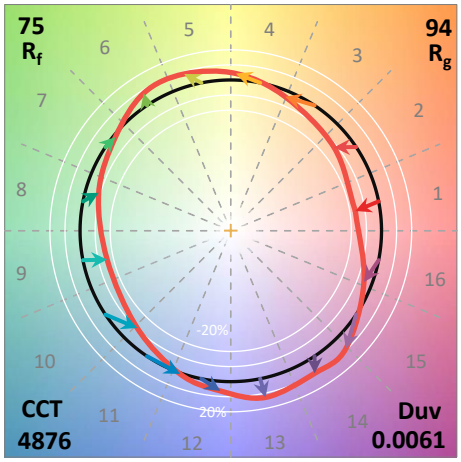
Spectral Power Distribution Comparison

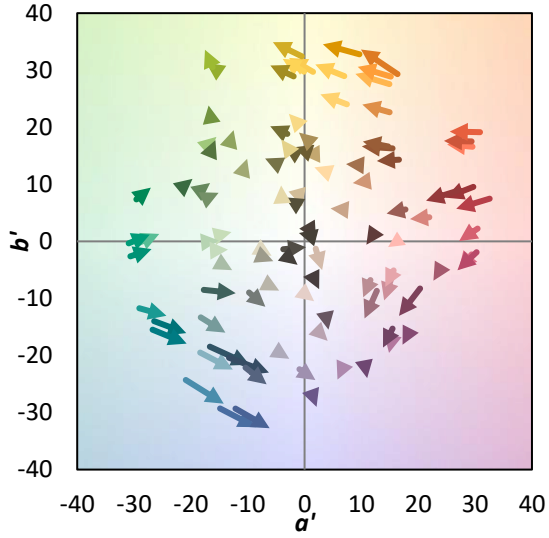


Color Vector Graphics







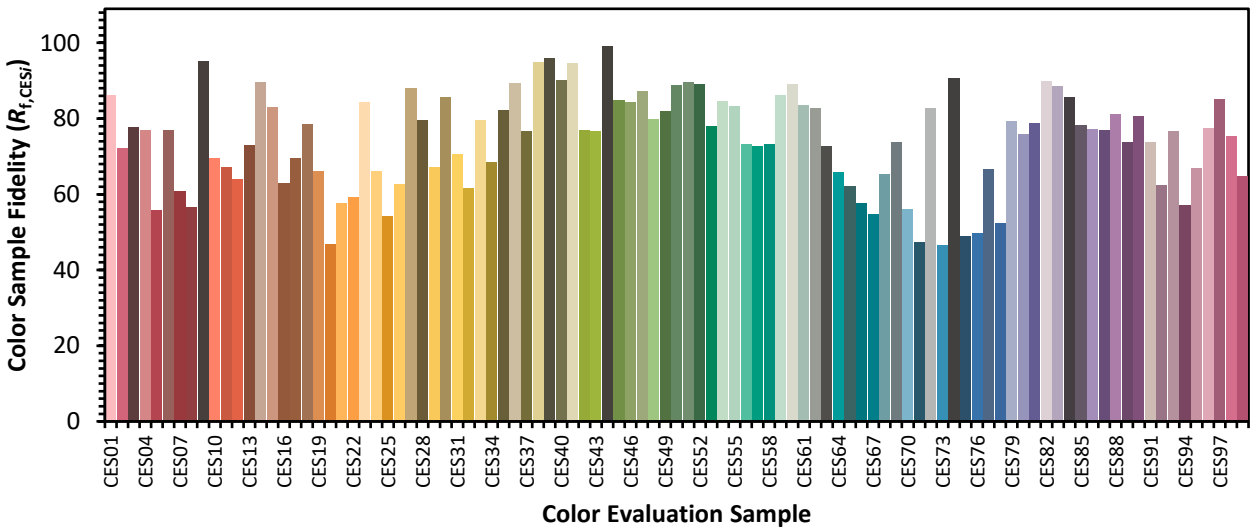


REPORT NUMBER: SP1-2411-284-3

TM-30-18

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

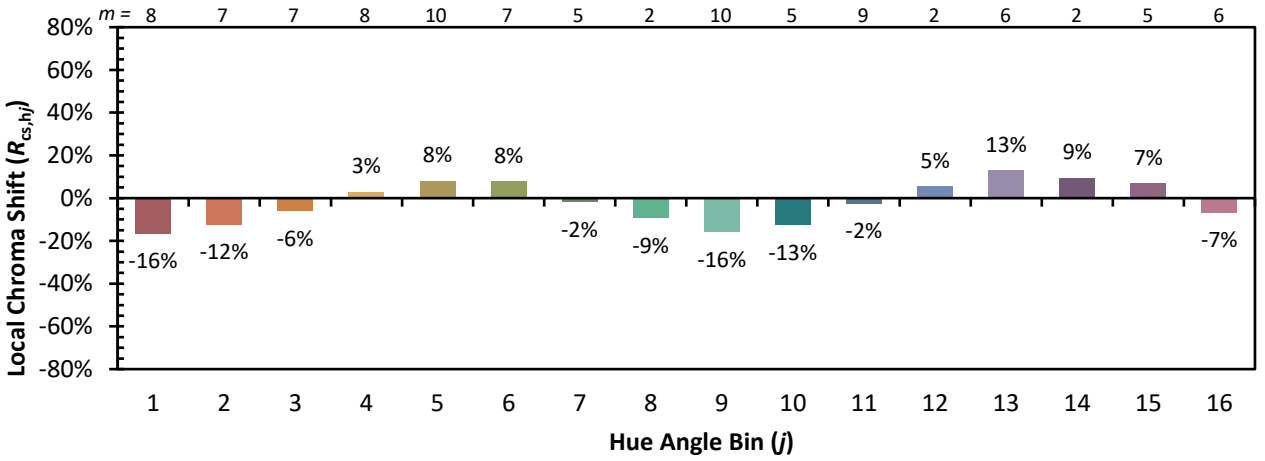
CES01 = 85	CES26 = 63	CES51 = 90	CES76 = 50
CES02 = 59	CES27 = 88	CES52 = 89	CES77 = 67
CES03 = 30	CES28 = 80	CES53 = 78	CES78 = 52
CES04 = 69	CES29 = 67	CES54 = 85	CES79 = 79
CES05 = 46	CES30 = 86	CES55 = 83	CES80 = 76
CES06 = 50	CES31 = 70	CES56 = 73	CES81 = 79
CES07 = 39	CES32 = 62	CES57 = 73	CES82 = 90
CES08 = 38	CES33 = 80	CES58 = 73	CES83 = 89
CES09 = 29	CES34 = 69	CES59 = 86	CES84 = 86
CES10 = 72	CES35 = 82	CES60 = 89	CES85 = 78
CES11 = 55	CES36 = 89	CES61 = 83	CES86 = 77
CES12 = 61	CES37 = 77	CES62 = 83	CES87 = 77
CES13 = 41	CES38 = 95	CES63 = 73	CES88 = 81
CES14 = 74	CES39 = 96	CES64 = 66	CES89 = 74
CES15 = 70	CES40 = 90	CES65 = 62	CES90 = 81
CES16 = 46	CES41 = 95	CES66 = 58	CES91 = 74
CES17 = 49	CES42 = 77	CES67 = 55	CES92 = 62
CES18 = 55	CES43 = 77	CES68 = 65	CES93 = 77
CES19 = 71	CES44 = 99	CES69 = 74	CES94 = 57
CES20 = 64	CES45 = 85	CES70 = 56	CES95 = 67
CES21 = 85	CES46 = 84	CES71 = 47	CES96 = 77
CES22 = 77	CES47 = 87	CES72 = 83	CES97 = 85
CES23 = 91	CES48 = 80	CES73 = 46	CES98 = 75
CES24 = 90	CES49 = 82	CES74 = 91	CES99 = 65
CES25 = 71	CES50 = 89	CES75 = 49	

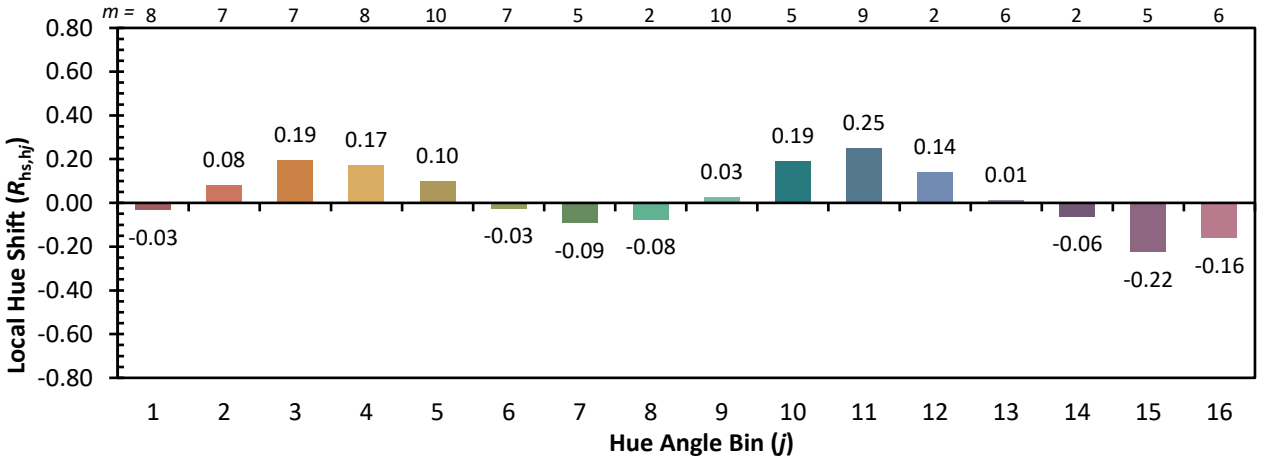


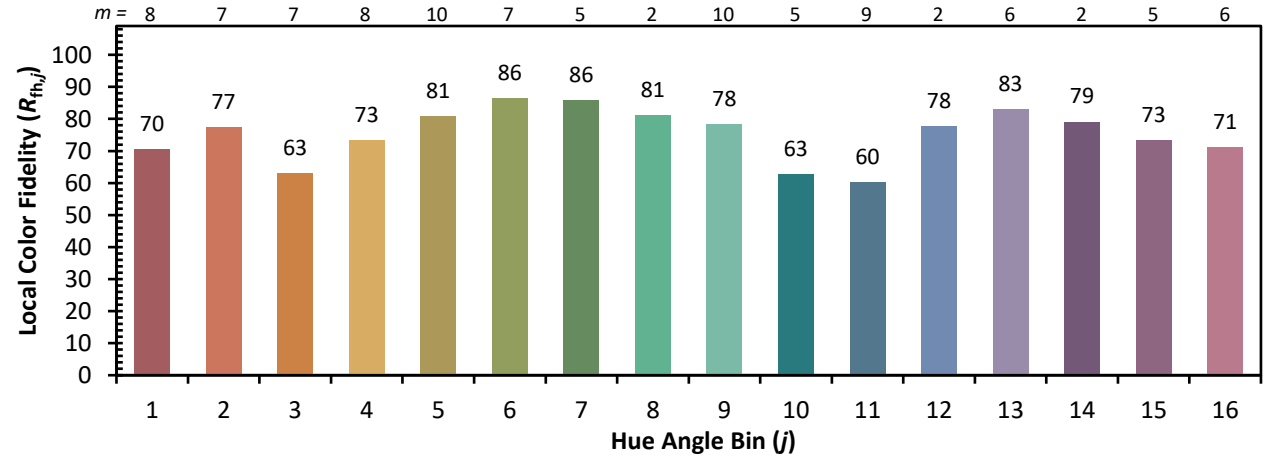
REPORT NUMBER: SP1-2411-284-3

TM-30-18

Color Rendition by Hue-Angle Bin



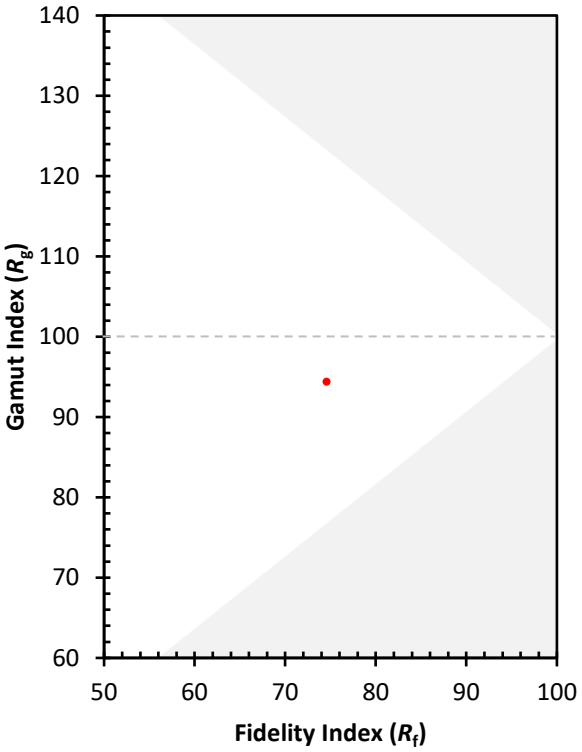


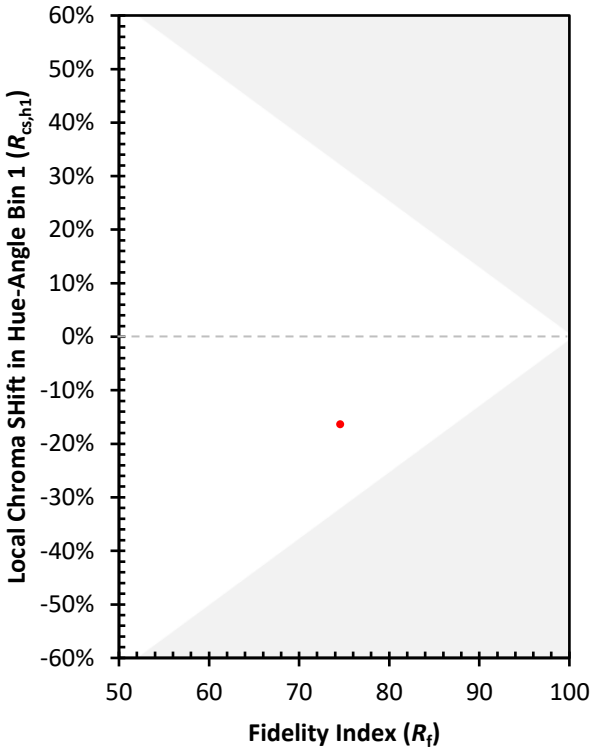


REPORT NUMBER: SP1-2411-284-3

TM-30-18

Measure Comparisons





(END OF REPORT)