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: P833161

Luminaire Tested: **TTN-D1-735-U-CQ-UPL1**

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:	P833161
	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-D1-735-U-CQ-UPL1
Description:	TOPTIER NANO LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
	3500K, 70 CRI LEDS AND CONCENTRATED DISTRIBUTION
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	3505.9 lumens
Efficiency:	N/A
Efficacy:	120.9 lumens/watt
Luminous Opening:	Vertical Cylinder (Dia: 0.71' x H: 0.1')
IES Classification:	Type V - Short
BUG Rating:	B1 - U3 - G1

Input Watts (W):	29
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

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REPORT NUMBER: P833161
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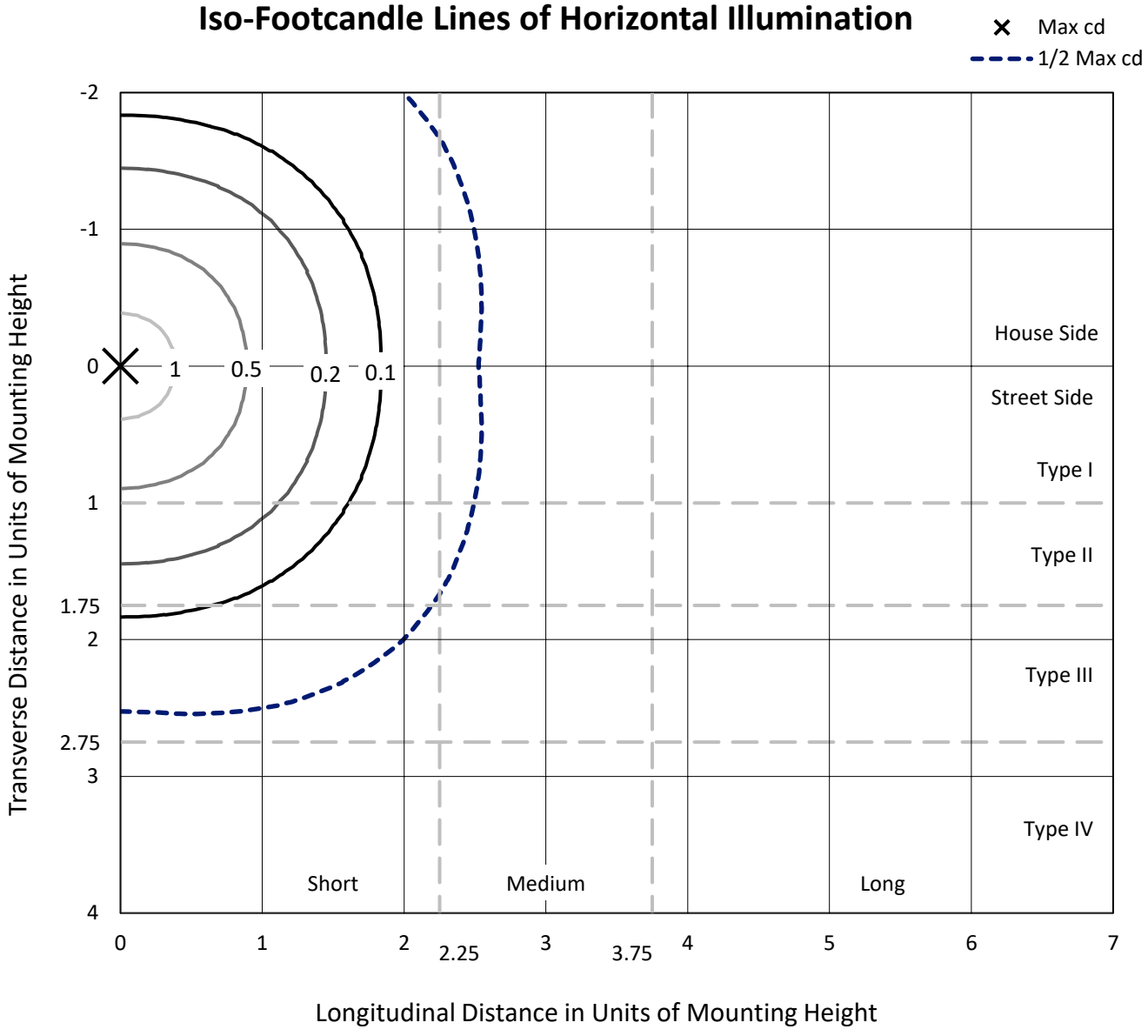
Iso-Footcandle Lines of Horizontal Illumination



Based on 25 foot mounting height. Maximum calculated value = 1.3 fc
Type V - Short - N/A

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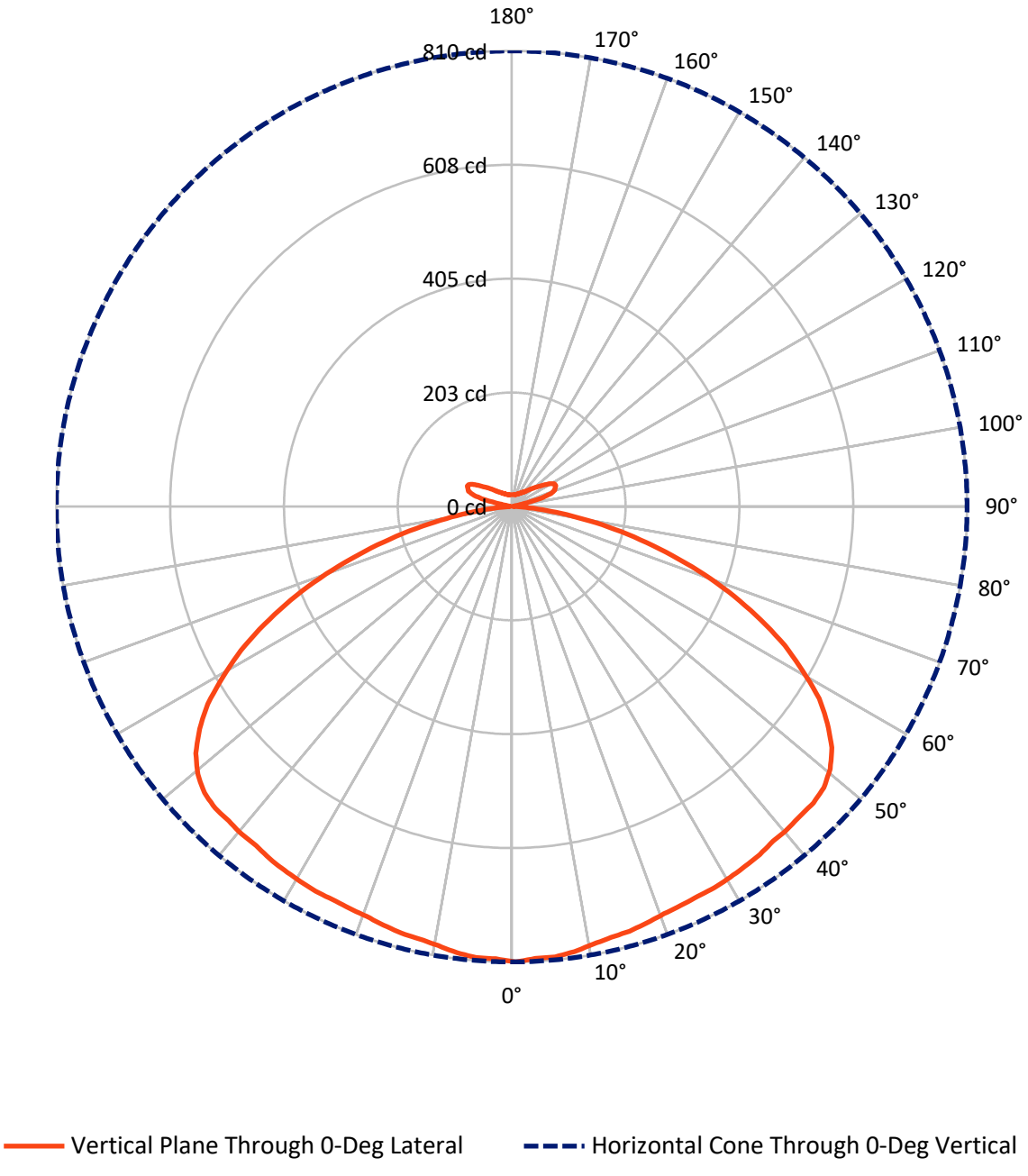
Luminous Intensity Polar Plot



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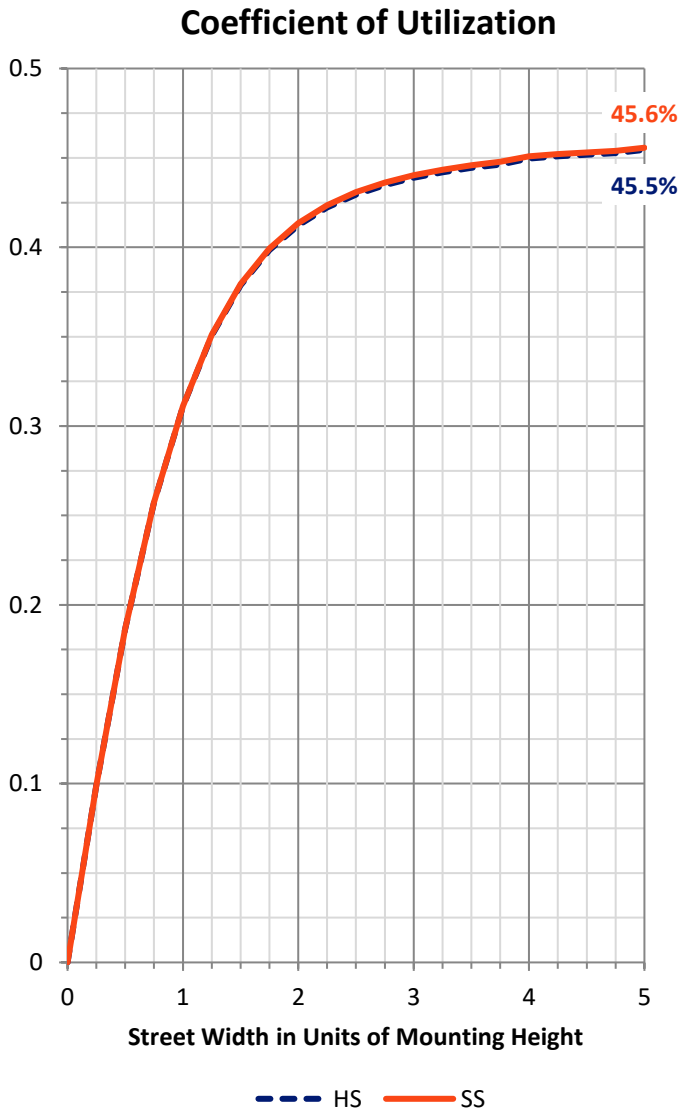
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1602.7	150.2	1753.0
	% Fixture	45.7	4.3	50.0
Street Side	Lumens	1602.7	150.2	1753.0
	% Fixture	45.7	4.3	50.0
Total	Lumens	3205.4	300.5	3505.9
	% Fixture	91.4	8.6	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.4	2.2
10°-20°	221.9	6.3
20°-30°	357.3	10.2
30°-40°	480.6	13.7
40°-50°	592.9	16.9
50°-60°	636.1	18.1
60°-70°	515.8	14.7
70°-80°	273.4	7.8
80°-90°	51.0	1.5
90°-100°	6.7	0.2
100°-110°	68.2	1.9
110°-120°	99.6	2.8
120°-130°	57.8	1.6
130°-140°	30.6	0.9
140°-150°	18.2	0.5
150°-160°	11.2	0.3
160°-170°	6.1	0.2
170°-180°	2.0	0.1
0°-90°	3205.4	91.4
0°-180°	3505.9	100.0



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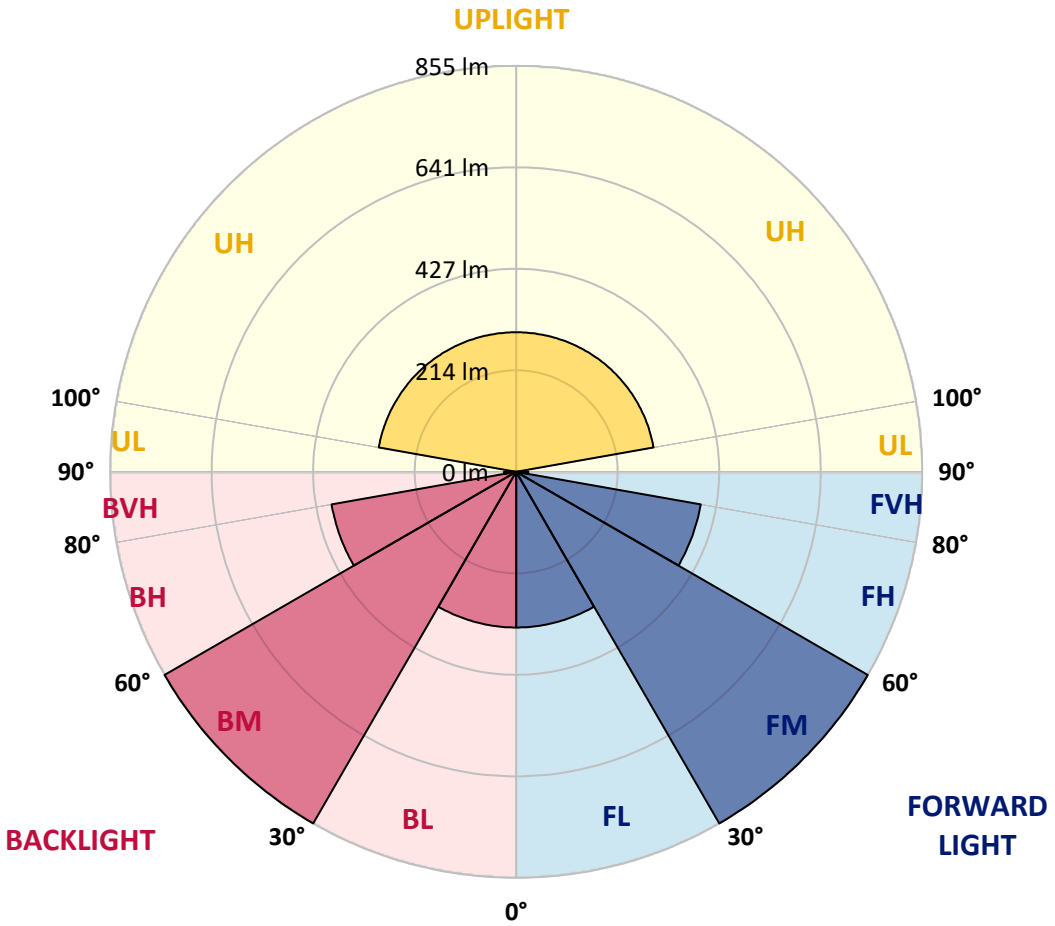
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	327.8	9.3			
FM	(30°-60°)	854.8	24.4			
FH	(60°-80°)	394.6	11.3			G0/660
FVH	(80°-90°)	25.5	0.7			G1/100
BL	(0°-30°)	327.8	9.3	B1/500		
BM	(30°-60°)	854.8	24.4	B1/1000		
BH	(60°-80°)	394.6	11.3	B1/500		G0/660
BVH	(80°-90°)	25.5	0.7			G1/100
UL	(90°-100°)	6.7	0.2		U1/10	
UH	(100°-180°)	293.8	8.4		U3/500	

BUG Rating: B1-U3-G1
Type V Short



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REPORT NUMBER: P833161
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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	810.4	810.4	810.4	810.4	810.4	810.4	810.4	810.4	810.4	810.4	810.4
2.5°	805.2	805.2	805.2	805.2	805.2	805.2	805.2	805.2	805.2	805.2	807.8
5°	805.2	805.2	805.2	805.2	802.6	805.2	805.2	805.2	805.2	805.2	805.2
7.5°	799.9	799.9	799.9	799.9	799.9	799.9	799.9	799.9	799.9	799.9	799.9
10°	792.1	792.1	792.1	792.1	792.1	792.1	792.1	792.1	792.1	792.1	792.1
12.5°	786.8	786.8	786.8	786.8	786.8	786.8	786.8	786.8	786.8	786.8	786.8
15°	784.2	784.2	784.2	784.2	784.2	784.2	784.2	784.2	784.2	781.6	781.6
17.5°	779.0	779.0	779.0	779.0	781.6	781.6	781.6	779.0	779.0	779.0	779.0
20°	773.7	773.7	773.7	776.3	776.3	776.3	776.3	776.3	773.7	773.7	773.7
22.5°	771.1	771.1	771.1	771.1	773.7	773.7	773.7	773.7	771.1	771.1	771.1
25°	768.5	768.5	771.1	771.1	773.7	773.7	773.7	771.1	771.1	768.5	768.5
27.5°	768.5	768.5	771.1	771.1	773.7	773.7	773.7	773.7	771.1	768.5	768.5
30°	765.8	768.5	768.5	771.1	773.7	773.7	773.7	771.1	768.5	765.8	765.8
32.5°	763.2	763.2	765.8	768.5	771.1	771.1	771.1	768.5	765.8	763.2	760.6
35°	760.6	760.6	760.6	765.8	768.5	768.5	768.5	765.8	760.6	758.0	758.0
37.5°	755.4	758.0	760.6	763.2	768.5	768.5	768.5	763.2	758.0	755.4	752.7
40°	755.4	755.4	760.6	763.2	771.1	771.1	768.5	763.2	758.0	752.7	750.1
42.5°	752.7	755.4	760.6	768.5	776.3	776.3	773.7	765.8	758.0	752.7	750.1
45°	752.7	752.7	760.6	771.1	781.6	784.2	779.0	771.1	760.6	750.1	750.1
47.5°	747.5	747.5	758.0	771.1	784.2	786.8	784.2	771.1	758.0	750.1	747.5
50°	734.4	734.4	747.5	763.2	779.0	784.2	779.0	768.5	750.1	739.6	737.0
52.5°	713.4	713.4	726.5	747.5	763.2	771.1	765.8	752.7	734.4	718.6	716.0
55°	681.9	684.5	697.7	721.3	739.6	747.5	742.2	726.5	705.5	689.8	684.5
57.5°	645.2	645.2	663.6	687.2	705.5	713.4	708.1	692.4	668.8	653.1	647.8
60°	595.4	598.0	613.7	645.2	663.6	671.4	666.2	647.8	621.6	603.2	598.0
62.5°	545.5	548.2	563.9	590.1	611.1	616.3	611.1	592.7	569.1	550.8	545.5
65°	487.8	490.5	508.8	532.4	548.2	556.0	548.2	532.4	511.4	493.1	490.5
67.5°	427.5	430.1	448.5	469.5	485.2	490.5	482.6	469.5	448.5	432.8	427.5
70°	364.6	367.2	382.9	401.3	414.4	419.6	414.4	398.7	382.9	367.2	364.6
72.5°	299.0	301.6	317.4	333.1	343.6	348.8	341.0	330.5	314.7	301.6	299.0
75°	236.0	236.0	249.2	262.3	272.8	275.4	270.1	262.3	249.2	238.7	233.4
77.5°	175.7	175.7	188.8	196.7	202.0	207.2	202.0	194.1	186.2	175.7	175.7
80°	118.0	118.0	128.5	133.8	139.0	141.6	139.0	133.8	128.5	120.6	118.0
82.5°	70.8	70.8	76.1	81.3	81.3	83.9	83.9	81.3	76.1	70.8	70.8
85°	31.5	28.9	34.1	36.7	36.7	39.3	39.3	36.7	34.1	31.5	31.5
87.5°	2.6	5.2	5.2	7.9	7.9	7.9	7.9	7.9	5.2	5.2	5.2
90°	2.6	2.6	3.1	3.1	3.1	3.1	3.1	3.1	3.1	2.6	2.6
92.5°	2.6	2.6	2.6	3.6	4.1	3.6	4.1	3.1	3.1	2.6	2.6
95°	3.1	3.1	3.6	4.6	5.7	6.2	6.2	3.6	3.6	3.1	3.1
97.5°	4.1	4.6	4.6	5.7	9.3	17.0	10.3	5.1	5.1	4.6	4.1
100°	6.7	7.2	7.2	12.9	27.2	36.5	26.2	13.4	9.8	7.2	7.2
102.5°	21.6	22.6	27.8	41.6	61.7	56.0	47.3	44.7	30.8	24.7	23.6
105°	55.0	54.5	58.6	69.4	86.4	84.8	78.1	70.9	61.2	56.5	56.5
107.5°	72.5	72.5	76.1	85.3	98.2	114.6	116.2	92.0	80.7	75.6	75.0
110°	81.7	81.7	84.8	92.5	109.5	132.6	131.6	113.6	99.7	93.0	92.0

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CATALOG NUMBER: TTN-D1-735-U-CQ-UPL1

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	*83.8*	84.3	88.4	100.2	118.7	129.0	124.4	117.2	111.0	105.9	104.9
115°	*86.9*	86.9	91.5	102.8	113.1	117.2	112.1	106.4	102.3	100.2	101.3
117.5°	*85.8*	87.4	88.4	94.6	101.3	104.4	101.8	94.1	91.0	90.0	88.4
120°	*79.7*	79.7	80.7	83.8	87.4	88.9	87.9	82.8	80.2	79.7	78.6
122.5°	*70.9*	71.5	70.9	72.5	75.0	76.6	75.6	71.5	70.4	70.4	69.4
125°	*62.2*	62.2	61.7	62.7	64.3	63.7	64.3	62.2	61.7	61.7	61.2
127.5°	*56.0*	55.5	54.5	55.0	55.5	55.5	56.0	54.0	54.5	55.0	54.5
130°	*49.9*	49.9	48.8	48.8	48.8	47.8	48.8	47.8	48.3	48.8	49.3
132.5°	*44.2*	44.2	42.7	42.2	42.2	42.2	42.7	42.2	43.2	44.2	44.2
135°	*39.6*	39.6	38.0	38.6	38.6	38.0	38.6	38.0	39.1	39.6	39.6
137.5°	*36.0*	36.0	35.0	35.0	35.0	34.4	35.0	35.0	35.5	36.5	37.0
140°	*32.9*	32.9	32.4	32.4	31.9	32.4	32.4	32.4	32.9	33.4	33.4
142.5°	*31.4*	30.8	30.3	29.8	30.3	30.3	30.3	29.8	30.3	31.4	31.4
145°	*28.8*	28.8	28.3	28.3	28.3	28.8	28.3	28.3	28.8	28.8	29.3
147.5°	*27.2*	27.2	26.7	27.2	27.2	27.2	27.2	26.7	27.2	27.2	27.8
150°	*26.7*	26.2	25.7	26.2	26.2	25.7	25.7	25.7	25.7	26.2	26.2
152.5°	*25.2*	25.2	24.7	25.2	24.7	24.7	24.7	24.7	24.7	25.2	25.7
155°	*24.2*	24.2	23.6	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2
157.5°	*23.1*	23.6	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.6	23.6
160°	*22.6*	22.6	22.6	22.6	22.1	22.1	22.1	22.6	22.6	22.6	23.1
162.5°	*22.1*	22.1	22.1	22.1	21.6	21.6	21.6	21.6	22.1	22.1	22.6
165°	*22.1*	21.6	21.6	21.6	21.1	21.1	21.1	21.1	21.6	22.1	21.6
167.5°	*21.1*	21.1	21.1	21.1	21.1	20.6	20.6	21.1	21.1	21.1	21.6
170°	*21.1*	21.1	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	21.1
172.5°	*21.1*	21.1	21.1	21.1	20.6	20.6	20.6	20.6	20.6	21.1	21.1
175°	*21.1*	21.1	21.1	21.1	20.6	20.6	20.6	21.1	21.1	21.1	20.6
177.5°	*21.1*	21.1	21.1	21.1	20.6	21.1	21.1	21.1	21.1	21.1	21.1
180°	*21.1*	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1

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

Report Prepared for

Cooper Lighting Solutions

MCGRAW EDISON

Report Number: SP1-2411-284-1

Test Date: 11/15/2024

Luminaire Tested: TTN-D0-735-U-WQ

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

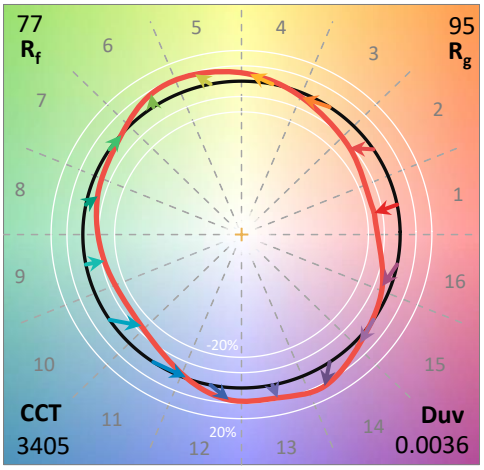
Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2411-284-1
Test Lab:	COOPER LIGHTING SOLUTIONS
Photometer:	SP1 - 76IN SPHERE
Measurement Geometry:	4π
Issue Date:	11/15/2024
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	MCGRAW EDISON
Catalog Number:	**TTN-D0-735-U-WQ**
Description:	TOPTIER NANO LED PARKING GARAGE LUMINAIRE. 3500K, 70 CRI LEDS AND WIDE DISTRIBUTION

Spectral Parameters

CCT (K):	3405	CRI (Ra):	73.9		
CIE u':	0.2365	R1:	71.3	R9:	-18.0
CIE v':	0.5180	R2:	80.3	R10:	53.1
Duv:	0.0036	R3:	87.8	R11:	68.6
CIE x:	0.4148	R4:	73.2	R12:	42.6
CIE y:	0.4038	R5:	69.8	R13:	72.5
CIE z:	0.1814	R6:	71.8	R14:	92.7
Peak Wavelength (nm):	596	R7:	82.8	R15:	64.3
Dominant Wavelength (nm):	579	R8:	54.1		
Purity:	45.70672				
Rf:	76.6				
Rg:	95.4				



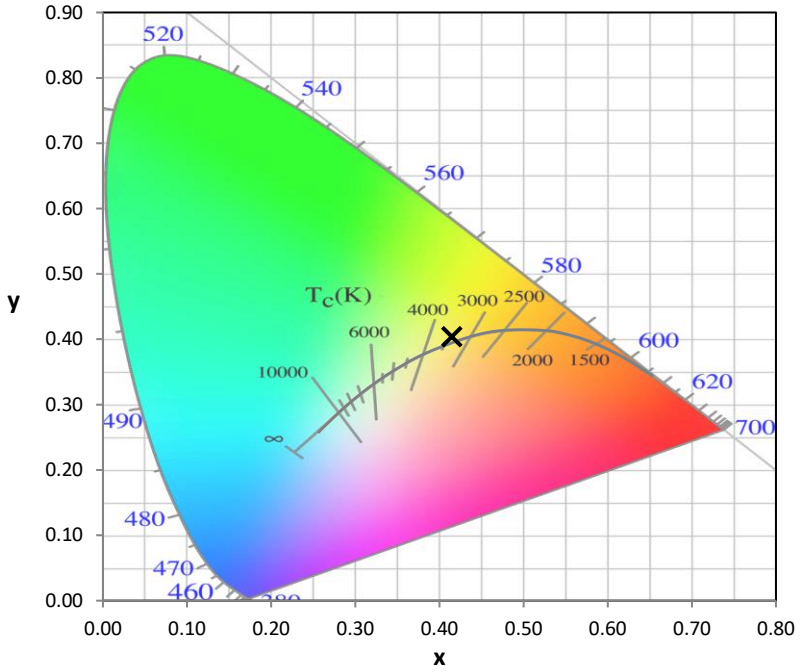
Test Conditions

Stabilization Time:	38M
Operation Time:	1H 38M
Sphere Temperature (°C):	24.9

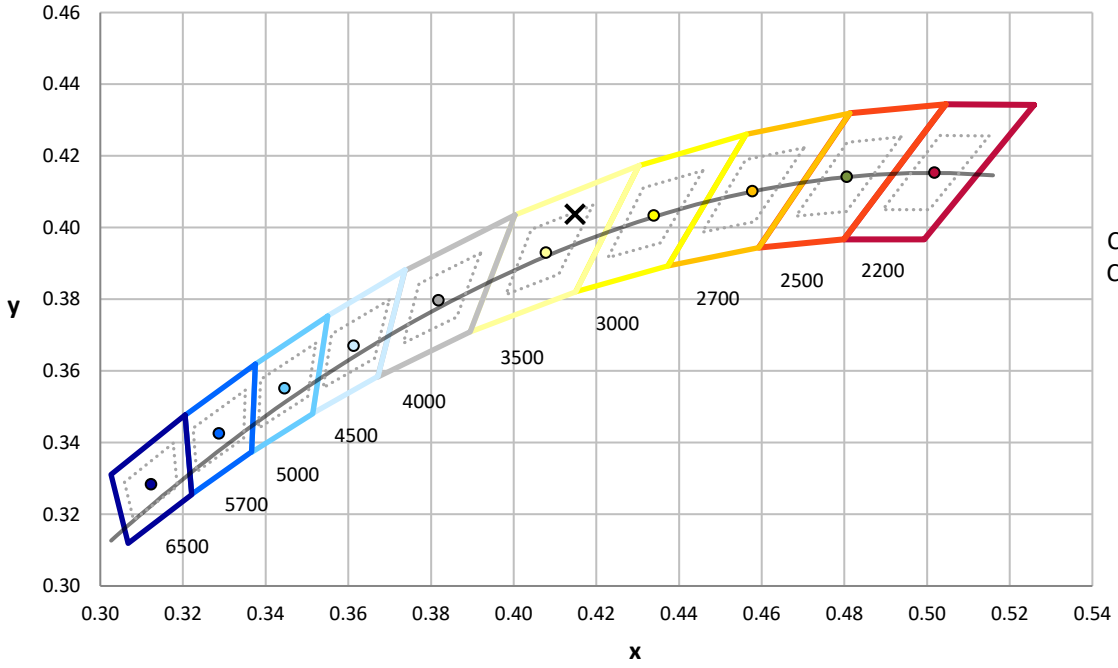
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/22/2024	10/22/2025
DC Power Source	IN0208	10/22/2024	10/22/2025
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2411-284-1

CIE 1931 Chromaticity Diagram



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

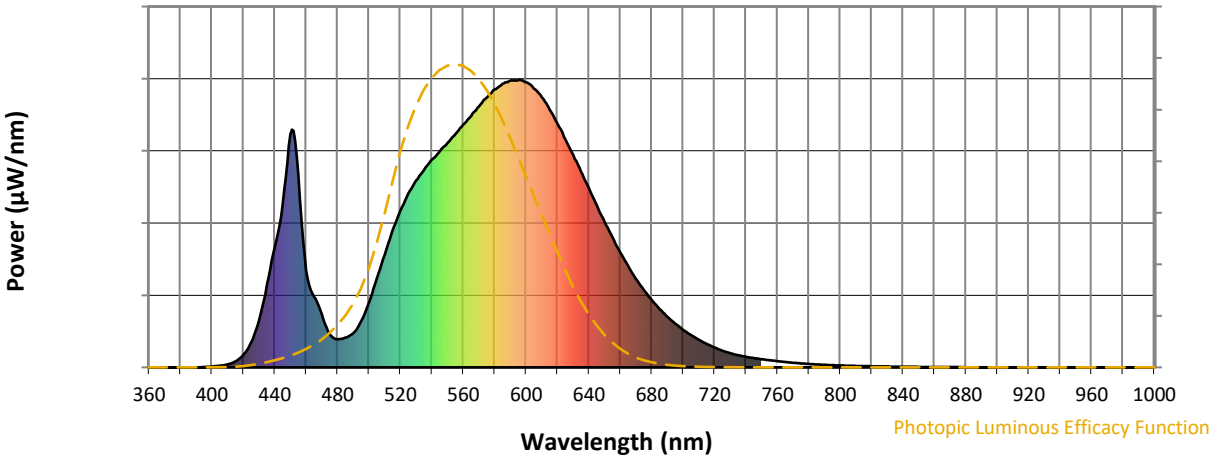


CCT = 3405K
CIE x = 0.4148
CIE y = 0.4038
Duv = 0.0036

Point lies inside the ANSI 3500K 4-step quadrangle

REPORT NUMBER: SP1-2411-284-1

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	846	NR	750	28	NR	880	1	NR
365	0	NR	495	160	NR	625	793	NR	755	25	NR	885	0	NR
370	0	NR	500	225	NR	630	739	NR	760	22	NR	890	0	NR
375	0	NR	505	308	NR	635	681	NR	765	19	NR	895	0	NR
380	0	NR	510	392	NR	640	623	NR	770	16	NR	900	0	NR
385	0	NR	515	474	NR	645	563	NR	775	14	NR	905	0	NR
390	0	NR	520	545	NR	650	506	NR	780	12	NR	910	0	NR
395	1	NR	525	603	NR	655	451	NR	785	10	NR	915	0	NR
400	3	NR	530	649	NR	660	399	NR	790	9	NR	920	0	NR
405	5	NR	535	687	NR	665	352	NR	795	8	NR	925	0	NR
410	11	NR	540	721	NR	670	307	NR	800	6	NR	930	0	NR
415	21	NR	545	751	NR	675	268	NR	805	6	NR	935	0	NR
420	43	NR	550	779	NR	680	234	NR	810	5	NR	940	0	NR
425	88	NR	555	811	NR	685	203	NR	815	4	NR	945	0	NR
430	163	NR	560	843	NR	690	176	NR	820	4	NR	950	0	NR
435	288	NR	565	873	NR	695	152	NR	825	3	NR	955	0	NR
440	416	NR	570	907	NR	700	131	NR	830	3	NR	960	0	NR
445	566	NR	575	938	NR	705	112	NR	835	3	NR	965	0	NR
450	810	NR	580	965	NR	710	96	NR	840	2	NR	970	0	NR
455	669	NR	585	986	NR	715	81	NR	845	2	NR	975	0	NR
460	338	NR	590	997	NR	720	69	NR	850	2	NR	980	0	NR
465	246	NR	595	997	NR	725	58	NR	855	1	NR	985	0	NR
470	182	NR	600	991	NR	730	49	NR	860	1	NR	990	0	NR
475	115	NR	605	968	NR	735	42	NR	865	1	NR	995	0	NR
480	97	NR	610	939	NR	740	37	NR	870	1	NR	1000	0	NR
485	103	NR	615	896	NR	745	32	NR	875	1	NR			

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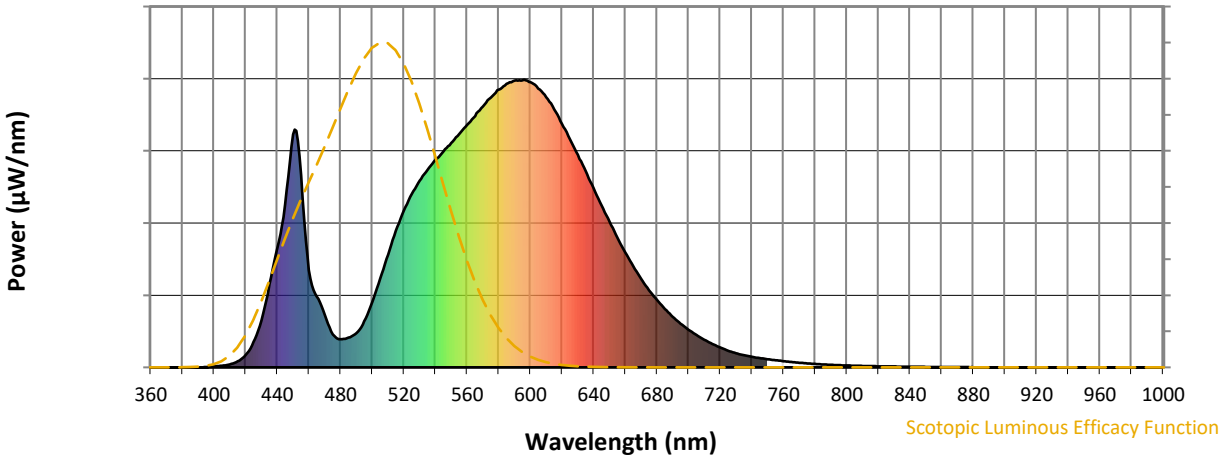
Scotopic Flux vs. Wavelength



Scotopic Lumens: NR **S/P: 1.33**

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	846	NR	750	28	NR	880	1	NR
365	0	NR	495	160	NR	625	793	NR	755	25	NR	885	0	NR
370	0	NR	500	225	NR	630	739	NR	760	22	NR	890	0	NR
375	0	NR	505	308	NR	635	681	NR	765	19	NR	895	0	NR
380	0	NR	510	392	NR	640	623	NR	770	16	NR	900	0	NR
385	0	NR	515	474	NR	645	563	NR	775	14	NR	905	0	NR
390	0	NR	520	545	NR	650	506	NR	780	12	NR	910	0	NR
395	1	NR	525	603	NR	655	451	NR	785	10	NR	915	0	NR
400	3	NR	530	649	NR	660	399	NR	790	9	NR	920	0	NR
405	5	NR	535	687	NR	665	352	NR	795	8	NR	925	0	NR
410	11	NR	540	721	NR	670	307	NR	800	6	NR	930	0	NR
415	21	NR	545	751	NR	675	268	NR	805	6	NR	935	0	NR
420	43	NR	550	779	NR	680	234	NR	810	5	NR	940	0	NR
425	88	NR	555	811	NR	685	203	NR	815	4	NR	945	0	NR
430	163	NR	560	843	NR	690	176	NR	820	4	NR	950	0	NR
435	288	NR	565	873	NR	695	152	NR	825	3	NR	955	0	NR
440	416	NR	570	907	NR	700	131	NR	830	3	NR	960	0	NR
445	566	NR	575	938	NR	705	112	NR	835	3	NR	965	0	NR
450	810	NR	580	965	NR	710	96	NR	840	2	NR	970	0	NR
455	669	NR	585	986	NR	715	81	NR	845	2	NR	975	0	NR
460	338	NR	590	997	NR	720	69	NR	850	2	NR	980	0	NR
465	246	NR	595	997	NR	725	58	NR	855	1	NR	985	0	NR
470	182	NR	600	991	NR	730	49	NR	860	1	NR	990	0	NR
475	115	NR	605	968	NR	735	42	NR	865	1	NR	995	0	NR
480	97	NR	610	939	NR	740	37	NR	870	1	NR	1000	0	NR
485	103	NR	615	896	NR	745	32	NR	875	1	NR			

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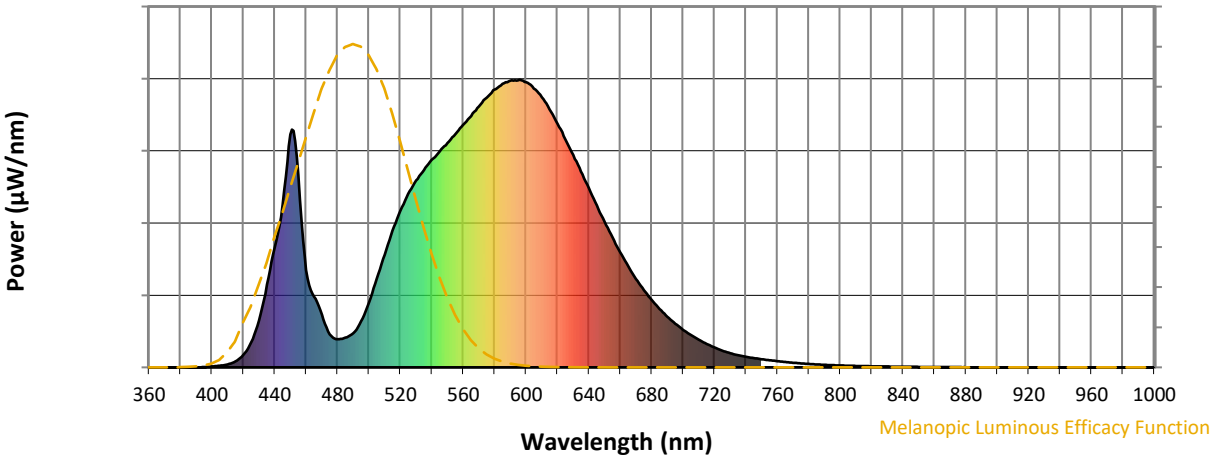
Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.47**

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	846	NR	750	28	NR	880	1	NR
365	0	NR	495	160	NR	625	793	NR	755	25	NR	885	0	NR
370	0	NR	500	225	NR	630	739	NR	760	22	NR	890	0	NR
375	0	NR	505	308	NR	635	681	NR	765	19	NR	895	0	NR
380	0	NR	510	392	NR	640	623	NR	770	16	NR	900	0	NR
385	0	NR	515	474	NR	645	563	NR	775	14	NR	905	0	NR
390	0	NR	520	545	NR	650	506	NR	780	12	NR	910	0	NR
395	1	NR	525	603	NR	655	451	NR	785	10	NR	915	0	NR
400	3	NR	530	649	NR	660	399	NR	790	9	NR	920	0	NR
405	5	NR	535	687	NR	665	352	NR	795	8	NR	925	0	NR
410	11	NR	540	721	NR	670	307	NR	800	6	NR	930	0	NR
415	21	NR	545	751	NR	675	268	NR	805	6	NR	935	0	NR
420	43	NR	550	779	NR	680	234	NR	810	5	NR	940	0	NR
425	88	NR	555	811	NR	685	203	NR	815	4	NR	945	0	NR
430	163	NR	560	843	NR	690	176	NR	820	4	NR	950	0	NR
435	288	NR	565	873	NR	695	152	NR	825	3	NR	955	0	NR
440	416	NR	570	907	NR	700	131	NR	830	3	NR	960	0	NR
445	566	NR	575	938	NR	705	112	NR	835	3	NR	965	0	NR
450	810	NR	580	965	NR	710	96	NR	840	2	NR	970	0	NR
455	669	NR	585	986	NR	715	81	NR	845	2	NR	975	0	NR
460	338	NR	590	997	NR	720	69	NR	850	2	NR	980	0	NR
465	246	NR	595	997	NR	725	58	NR	855	1	NR	985	0	NR
470	182	NR	600	991	NR	730	49	NR	860	1	NR	990	0	NR
475	115	NR	605	968	NR	735	42	NR	865	1	NR	995	0	NR
480	97	NR	610	939	NR	740	37	NR	870	1	NR	1000	0	NR
485	103	NR	615	896	NR	745	32	NR	875	1	NR			

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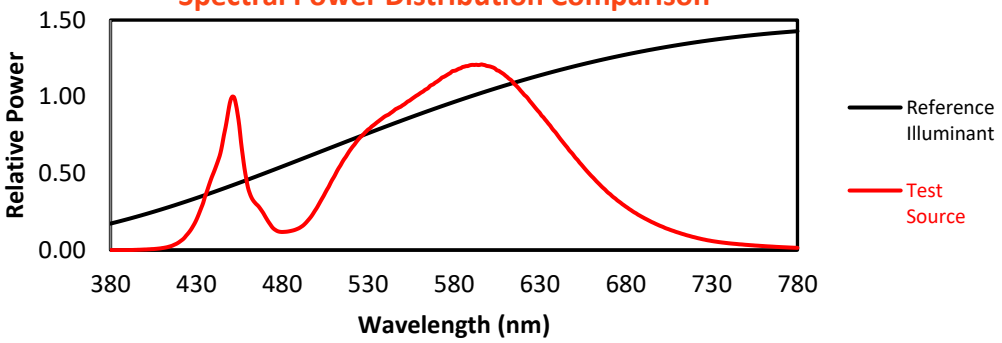
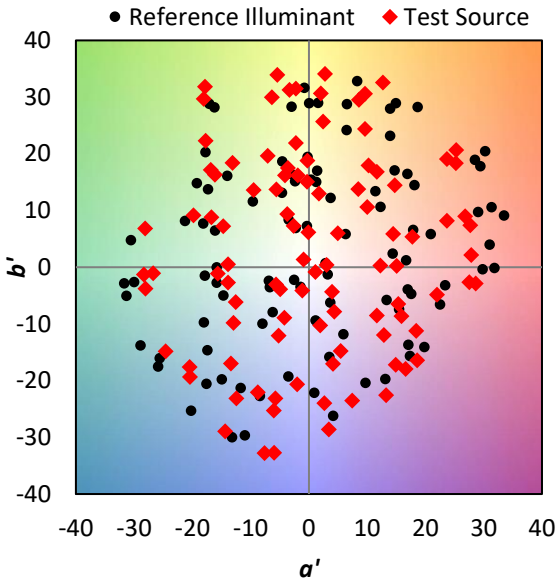
Summary

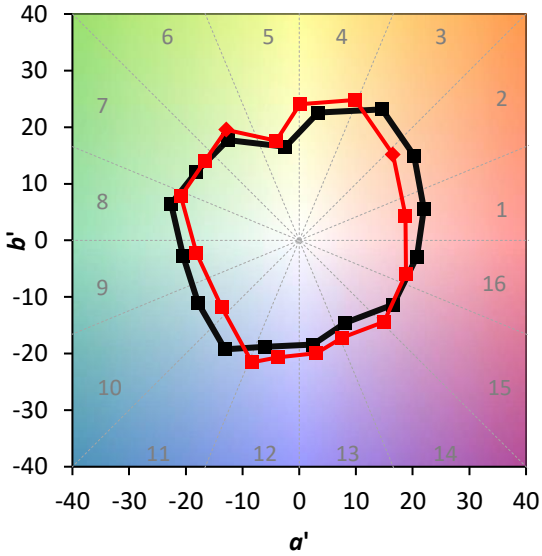
R_f = 76.6
R_g = 95.4
CIE R_a = 73.9
R_9 = -18.0

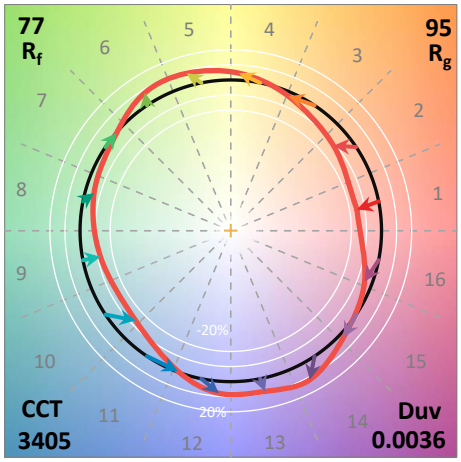
Spectral Power Distribution Comparison

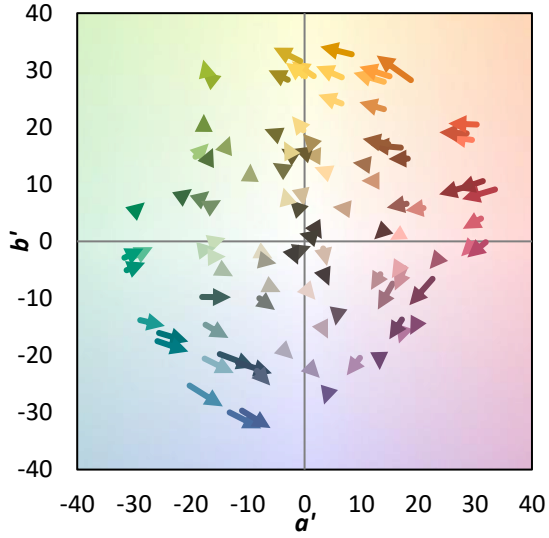


Color Vector Graphics









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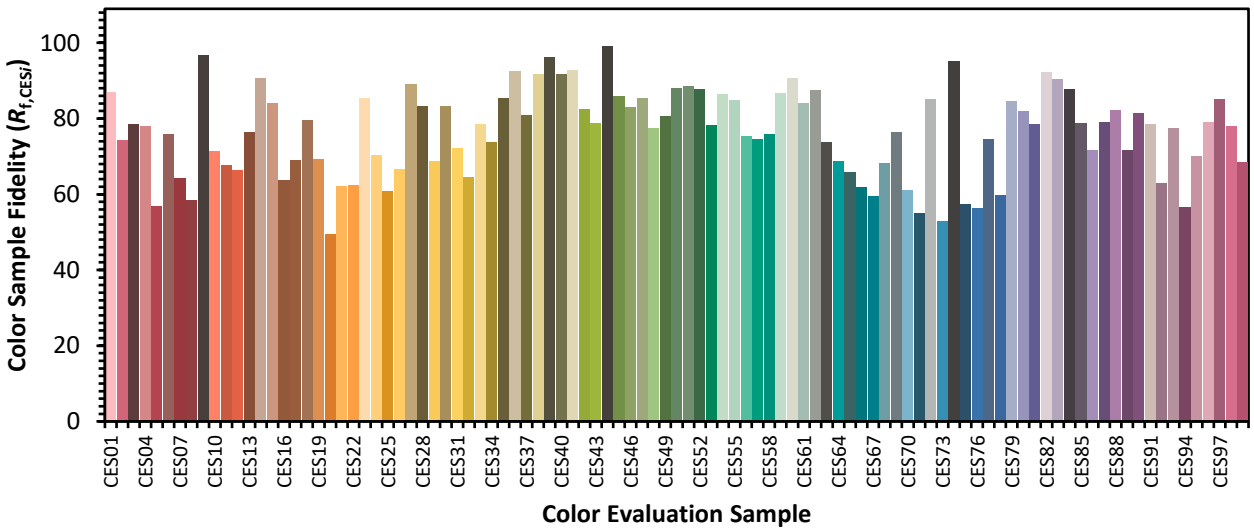
Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 86	CES26 = 67	CES51 = 88	CES76 = 56
CES02 = 62	CES27 = 89	CES52 = 88	CES77 = 75
CES03 = 31	CES28 = 83	CES53 = 78	CES78 = 60
CES04 = 70	CES29 = 69	CES54 = 86	CES79 = 85
CES05 = 48	CES30 = 83	CES55 = 85	CES80 = 82
CES06 = 51	CES31 = 72	CES56 = 75	CES81 = 78
CES07 = 41	CES32 = 65	CES57 = 75	CES82 = 92
CES08 = 40	CES33 = 78	CES58 = 76	CES83 = 90
CES09 = 29	CES34 = 74	CES59 = 87	CES84 = 88
CES10 = 75	CES35 = 86	CES60 = 91	CES85 = 79
CES11 = 58	CES36 = 93	CES61 = 84	CES86 = 72
CES12 = 64	CES37 = 81	CES62 = 88	CES87 = 79
CES13 = 43	CES38 = 92	CES63 = 74	CES88 = 82
CES14 = 74	CES39 = 96	CES64 = 69	CES89 = 72
CES15 = 71	CES40 = 92	CES65 = 66	CES90 = 82
CES16 = 47	CES41 = 93	CES66 = 62	CES91 = 79
CES17 = 50	CES42 = 83	CES67 = 60	CES92 = 63
CES18 = 56	CES43 = 79	CES68 = 68	CES93 = 77
CES19 = 72	CES44 = 99	CES69 = 76	CES94 = 56
CES20 = 65	CES45 = 86	CES70 = 61	CES95 = 70
CES21 = 86	CES46 = 83	CES71 = 55	CES96 = 79
CES22 = 79	CES47 = 85	CES72 = 85	CES97 = 85
CES23 = 92	CES48 = 78	CES73 = 53	CES98 = 78
CES24 = 91	CES49 = 81	CES74 = 95	CES99 = 68
CES25 = 72	CES50 = 88	CES75 = 57	



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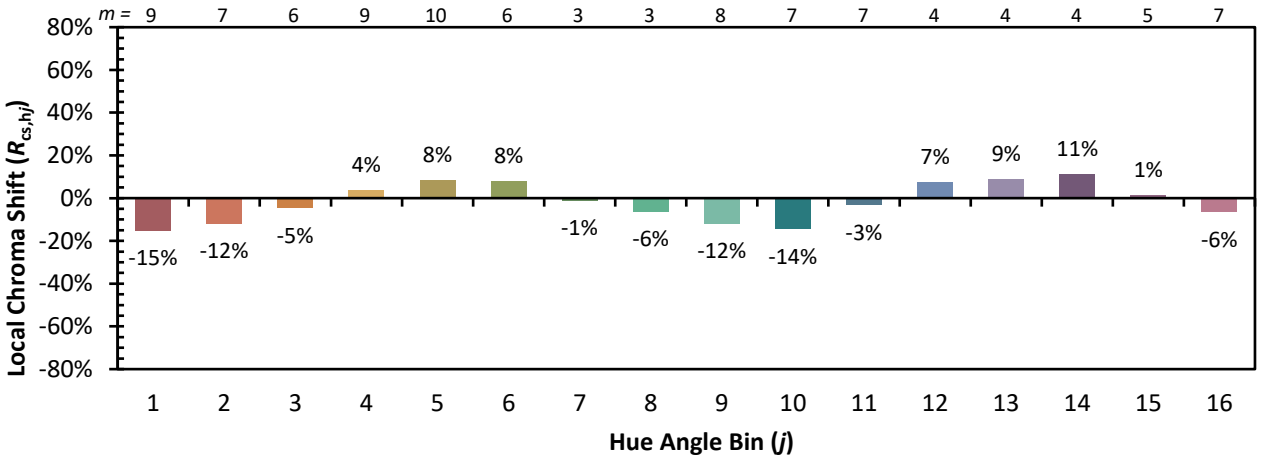
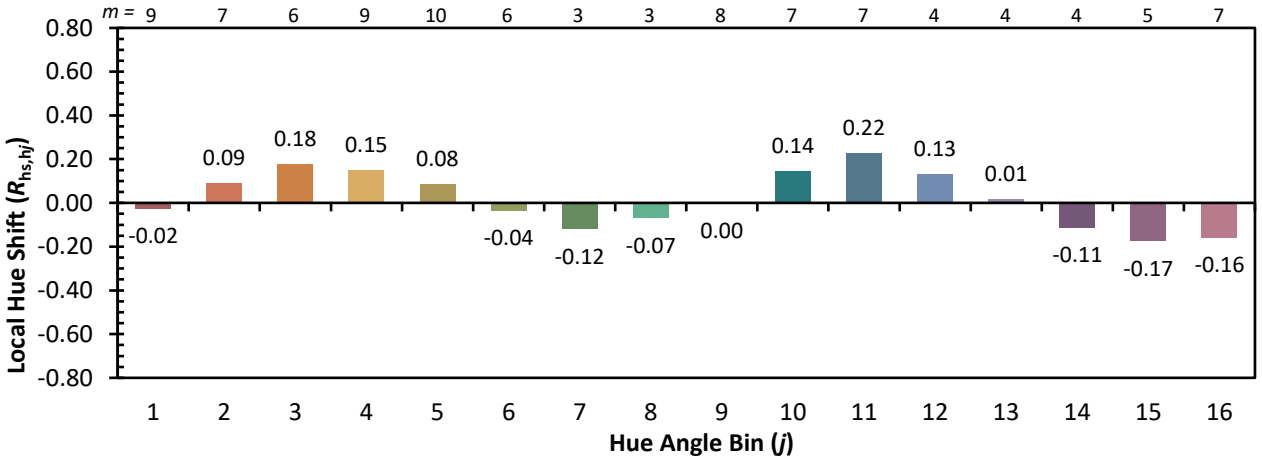
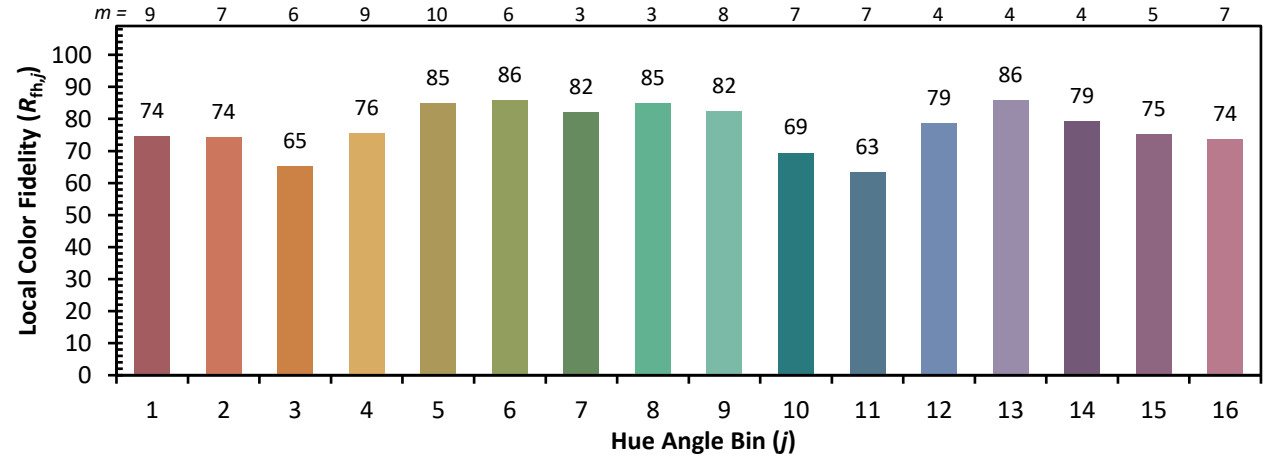
Color Rendition by Hue-Angle Bin







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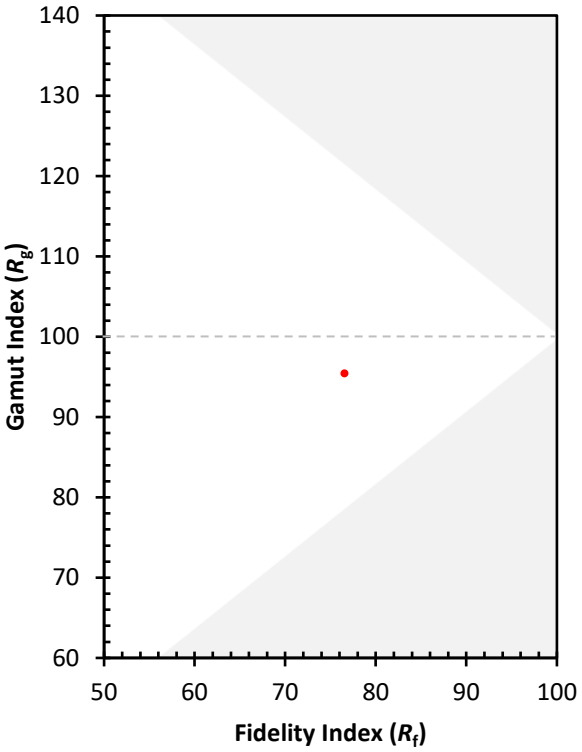
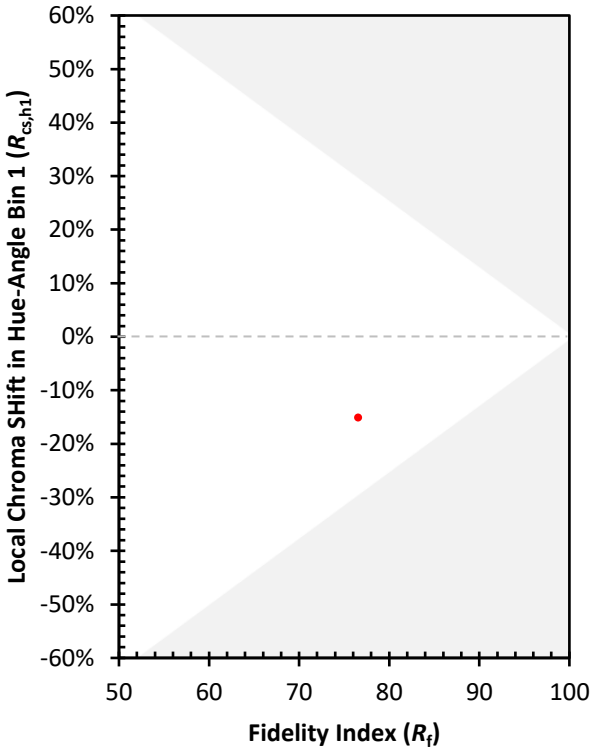
Measure Comparisons





(END OF REPORT)