

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: P227790

Luminaire Tested: **ISS-AF-800-LED-E1-T4FT-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P227790
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29760)-DOWNLIGHT AND
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: ISS-AF-800-LED-E1-T4FT-ULG
Description: IMPACT ELITE LED QUATER SPHERE LUMINAIRE WITH UPLIGHT
LIGHT SQUARE WITH ACCULED OPTICS-TYPE IV FORWARD THROW, WITH UPLIGHT GLOW
Light Source: (16) 4000K CCT, 70 CRI LEDs and (1) UPLIGHT LED
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6409 lumens
Efficiency: N/A
Efficacy: 106.5 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.54')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U5 - G2

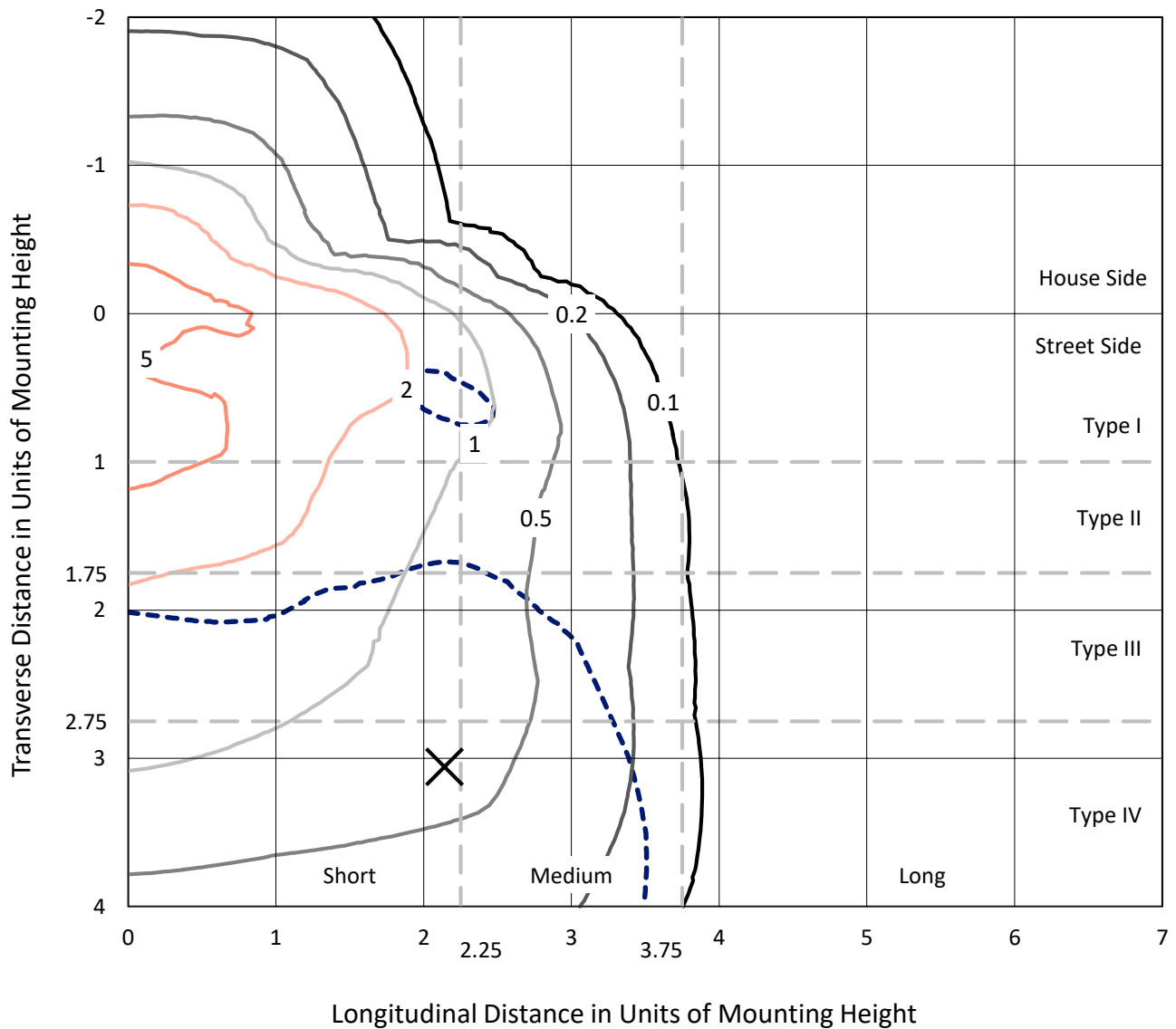
Input Watts (W): 60.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

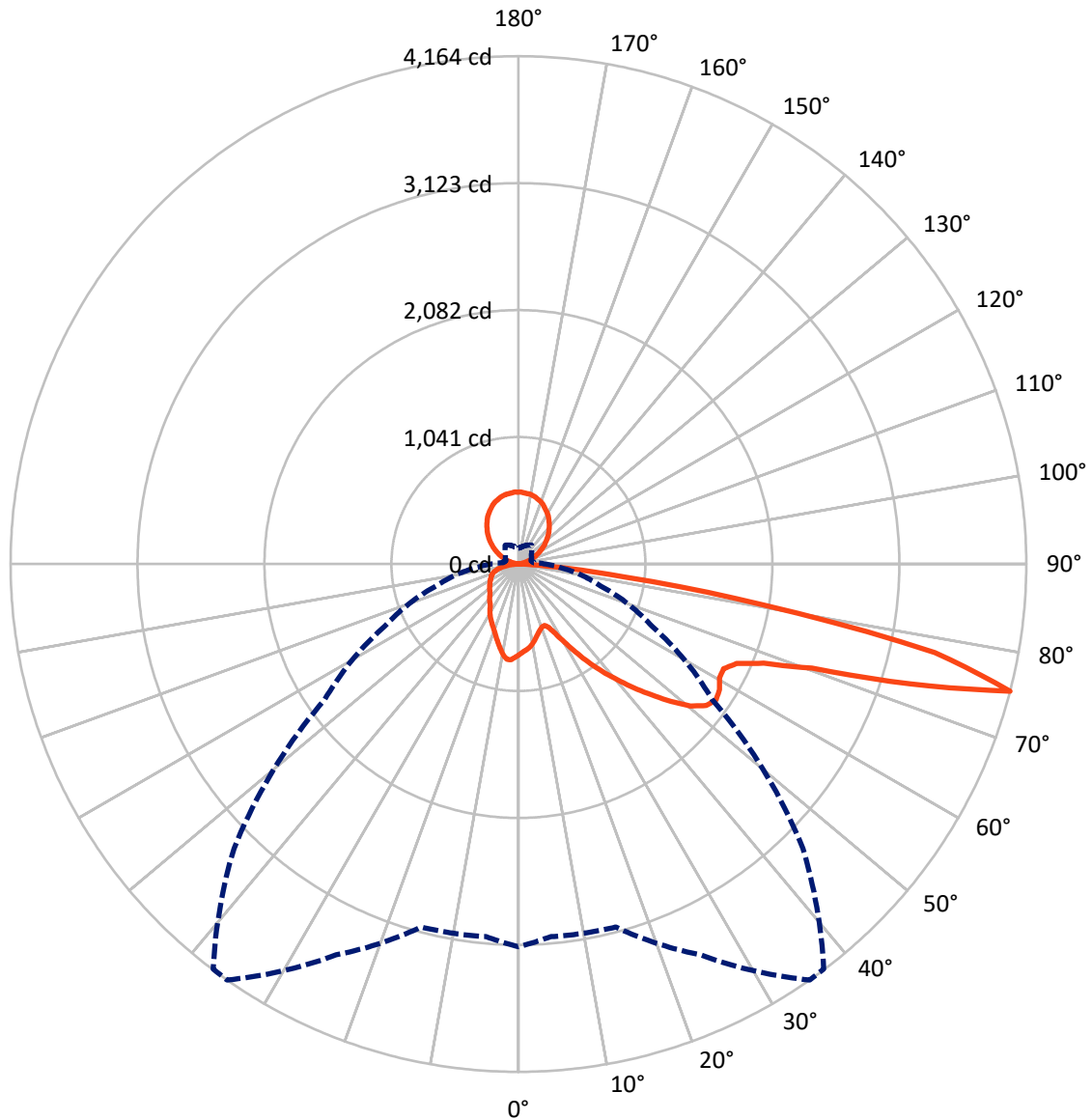
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.6 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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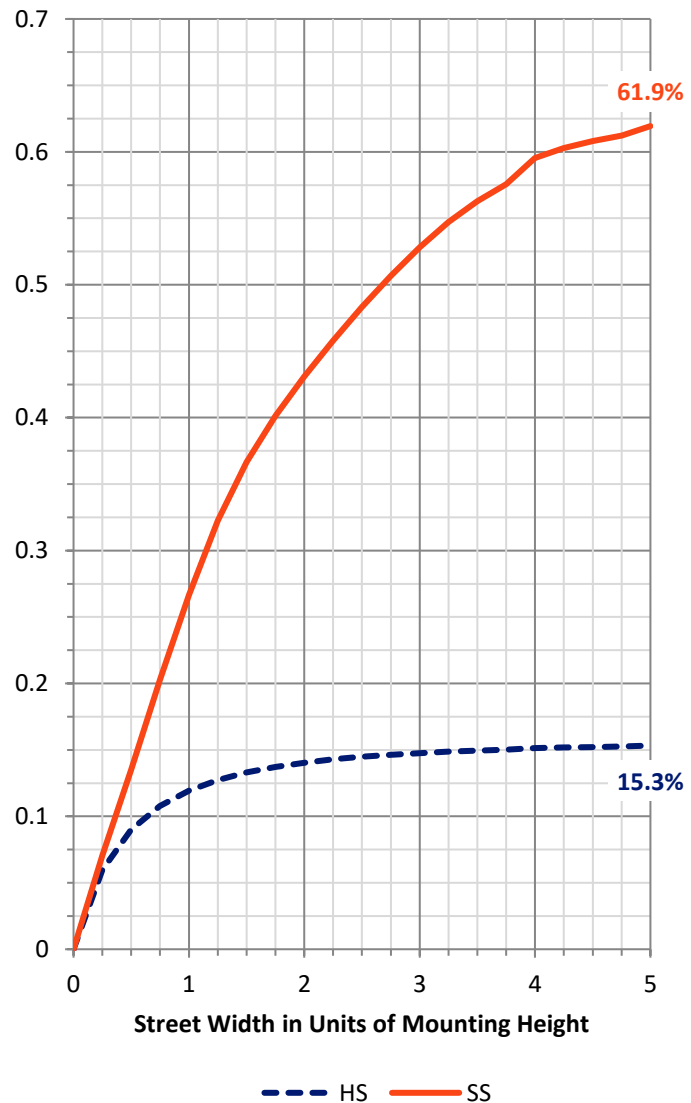
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	993.5	729.4	1722.9
	% Fixture	15.5	11.4	26.9
Street Side	Lumens	3956.6	729.4	4686.0
	% Fixture	61.7	11.4	73.1
Total	Lumens	4950.1	1458.9	6409.0
	% Fixture	77.2	22.8	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.8	1.1
10°-20°	184.2	2.9
20°-30°	291.4	4.5
30°-40°	470.4	7.3
40°-50°	695.9	10.9
50°-60°	894.8	14.0
60°-70°	1107.9	17.3
70°-80°	1116.4	17.4
80°-90°	119.2	1.9
90°-100°	4.8	0.1
100°-110°	70.6	1.1
110°-120°	156.6	2.4
120°-130°	229.0	3.6
130°-140°	271.7	4.2
140°-150°	275.5	4.3
150°-160°	236.4	3.7
160°-170°	158.7	2.5
170°-180°	55.6	0.9
0°-90°	4950.1	77.2
0°-180°	6409.0	100.0



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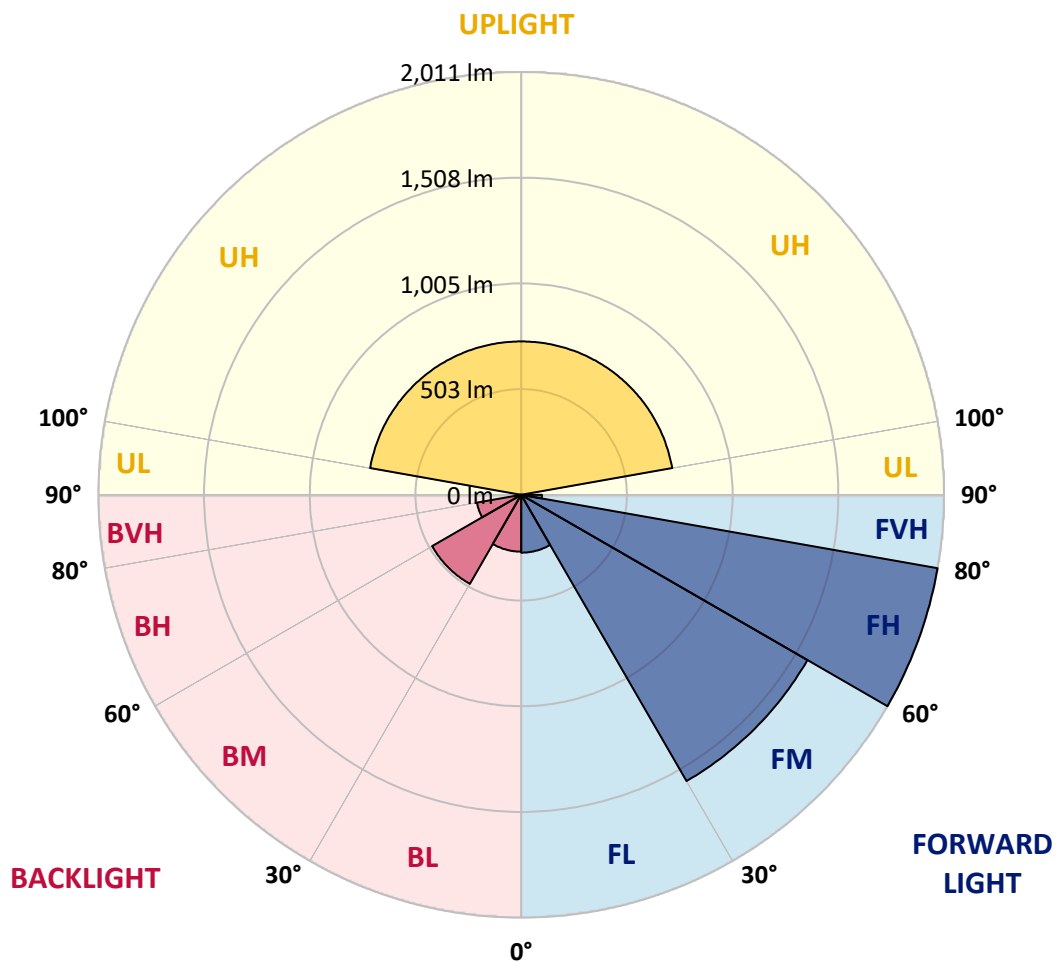
CATALOG NUMBER: ISS-AF-800-LED-E1-T4FT-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	275.2	4.3			
FM	(30°-60°)	1571.8	24.5			
FH	(60°-80°)	2010.9	31.4			G2/5000
FVH	(80°-90°)	98.6	1.5			G1/100
BL	(0°-30°)	270.2	4.2	B1/500		
BM	(30°-60°)	489.2	7.6	B1/1000		
BH	(60°-80°)	213.4	3.3	B1/500		G1/500
BVH	(80°-90°)	20.6	0.3			G1/100
UL	(90°-100°)	4.8	0.1		U1/10	
UH	(100°-180°)	729.4	11.4		U4/1000	

BUG Rating: B1-U5-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	37°	45°	55°	65°	75°	85°
0°	743.6	743.6	743.6	743.6	743.6	743.6	743.6	743.6	743.6	743.6	743.6
2.5°	722.1	720.5	718.8	718.8	722.1	722.1	723.8	725.5	727.1	732.0	738.7
5°	702.4	700.6	699.0	700.6	705.6	705.6	710.5	713.9	717.2	725.5	733.7
7.5°	675.9	675.9	674.2	680.9	685.8	684.1	690.7	694.1	702.4	710.5	723.8
10°	641.2	641.2	641.2	649.5	657.7	657.7	662.7	671.0	677.5	689.1	705.6
12.5°	611.4	609.8	609.8	616.4	626.3	628.0	636.2	647.7	656.0	671.0	689.1
15°	601.5	598.2	589.9	589.9	594.9	594.9	608.1	624.6	637.9	652.7	674.2
17.5°	603.1	598.2	576.7	570.1	570.1	571.7	585.0	603.1	619.7	637.9	665.9
20°	618.1	609.8	570.1	555.3	552.0	553.6	565.2	583.3	603.1	628.0	659.4
22.5°	682.5	669.2	594.9	561.8	547.0	547.0	553.6	573.5	598.2	631.3	671.0
25°	831.2	809.8	677.5	618.1	573.5	568.5	556.9	576.7	606.5	646.1	704.0
27.5°	983.3	961.8	780.0	715.6	646.1	631.3	588.3	593.2	626.3	679.1	753.5
30°	1110.5	1092.3	908.9	834.5	741.9	725.5	659.4	628.0	661.0	725.5	827.9
32.5°	1120.4	1112.2	1047.7	971.7	859.3	836.2	748.6	699.0	715.6	788.3	908.9
35°	1212.9	1206.4	1171.6	1099.0	986.5	960.1	867.6	791.6	786.5	857.6	1001.4
37.5°	1303.9	1295.6	1272.4	1222.8	1118.7	1097.2	1024.6	902.2	867.6	938.7	1092.3
40°	1389.8	1378.2	1348.5	1320.3	1244.3	1244.3	1166.7	1008.0	945.2	1009.7	1168.3
42.5°	1548.4	1512.0	1432.7	1411.3	1389.8	1389.8	1275.7	1080.7	1008.0	1087.3	1241.0
45°	1700.5	1665.7	1558.3	1515.3	1527.0	1520.3	1363.3	1122.1	1064.2	1160.0	1310.4
47.5°	1821.1	1789.7	1680.6	1650.8	1683.9	1657.5	1436.0	1155.1	1135.3	1237.8	1368.3
50°	1928.5	1854.1	1748.3	1788.0	1829.3	1784.7	1500.5	1204.6	1206.4	1320.3	1452.6
52.5°	1781.4	1773.1	1796.3	1888.8	1928.5	1878.9	1558.3	1267.4	1282.4	1426.1	1548.4
55°	1604.6	1603.0	1738.4	1918.5	1966.5	1920.2	1596.3	1343.4	1361.6	1556.6	1669.0
57.5°	1569.9	1553.4	1645.9	1855.7	1943.3	1910.3	1616.2	1414.5	1437.7	1721.9	1788.0
60°	1682.2	1650.8	1636.0	1788.0	1893.8	1877.2	1640.9	1498.8	1530.2	1910.3	1898.7
62.5°	1926.8	1883.9	1778.1	1792.9	1888.8	1875.6	1700.5	1598.0	1634.4	2098.7	1961.5
65°	2250.7	2219.3	2050.7	1930.1	1966.5	1948.3	1807.9	1723.6	1743.4	2234.2	1890.4
67.5°	2606.0	2563.0	2379.6	2214.4	2168.0	2133.4	1978.1	1872.3	1801.2	2214.4	1700.5
70°	3007.6	2961.2	2802.7	2632.5	2553.1	2515.1	2275.5	2001.2	1779.7	1996.2	1341.8
72.5°	3501.7	3438.9	3351.3	3369.4	3356.2	3250.4	2749.8	2044.2	1622.7	1485.6	801.5
75°	3138.1	3067.0	3081.9	3536.3	4164.3	4159.3	3298.4	1938.4	1209.6	700.6	347.0
77.5°	1125.3	1244.3	1835.9	2648.9	3491.7	3486.7	2553.1	1212.9	518.8	299.1	209.9
80°	282.5	287.6	456.1	1087.3	2039.2	2022.7	1447.6	457.8	216.5	181.8	143.7
82.5°	90.8	97.5	166.9	375.1	872.5	852.7	449.5	150.4	135.5	117.3	87.6
85°	29.8	29.8	59.5	128.9	287.6	276.0	90.8	54.5	74.4	61.2	39.7
87.5°	0.0	0.0	1.6	3.3	6.6	3.3	0.0	3.3	9.9	11.6	8.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
97.5°	2.0	2.0	2.0	3.1	4.1	5.1	9.2	13.3	7.2	5.1	4.1
100°	8.2	8.2	10.2	14.3	22.5	24.1	30.7	32.7	30.7	27.6	26.6
102.5°	28.6	28.6	32.7	38.9	46.0	47.1	51.1	52.2	51.1	49.1	50.1
105°	55.2	55.2	57.3	62.4	67.5	68.3	71.6	72.6	72.6	70.6	72.6
107.5°	79.8	78.8	81.8	85.9	90.0	90.6	93.1	95.1	94.1	93.1	94.1
110°	103.3	104.3	105.4	108.4	112.5	112.9	114.6	116.6	116.6	115.6	116.6

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CATALOG NUMBER: ISS-AF-800-LED-E1-T4FT-ULG

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	37°	45°	55°	65°	75°	85°
112.5°	126.8	126.8	128.9	132.0	135.0	135.4	137.1	139.1	139.1	138.1	140.1
115°	149.4	150.4	152.4	154.5	157.5	157.9	159.6	161.6	161.6	161.6	163.7
117.5°	172.9	173.9	175.9	178.0	181.1	181.5	183.1	184.1	185.2	184.1	186.2
120°	197.4	199.5	200.5	202.5	205.6	205.8	206.6	208.7	208.7	208.7	210.7
122.5°	224.0	225.0	226.1	228.1	231.2	231.4	232.2	233.2	233.2	234.3	238.3
125°	249.6	251.6	252.7	253.7	256.8	257.0	257.8	258.8	259.8	259.8	262.9
127.5°	273.1	275.2	276.2	278.2	280.3	280.7	282.3	284.4	283.4	284.4	287.4
130°	296.7	298.7	299.7	300.7	304.8	305.0	305.9	307.9	307.9	308.9	312.0
132.5°	320.2	321.2	324.3	325.3	328.4	328.6	329.4	332.5	332.5	333.5	336.6
135°	343.7	344.7	346.8	348.8	352.9	352.9	352.9	356.0	356.0	357.0	359.1
137.5°	367.2	368.3	371.3	372.4	375.4	375.4	375.4	377.5	377.5	378.5	382.6
140°	390.8	391.8	393.8	394.9	396.9	397.1	397.9	399.0	399.0	401.0	405.1
142.5°	413.3	415.3	417.4	416.3	419.4	419.4	419.4	421.5	421.5	422.5	425.5
145°	434.8	435.8	437.8	437.8	440.9	441.1	441.9	444.0	442.9	444.0	447.0
147.5°	454.2	454.2	457.3	458.3	462.4	462.6	463.4	464.4	462.4	463.4	466.5
150°	471.6	472.6	474.6	475.7	479.8	480.0	480.8	481.8	479.8	479.8	483.9
152.5°	490.0	491.0	494.1	493.1	496.1	496.3	497.2	498.2	497.2	497.2	500.2
155°	510.5	511.5	513.5	512.5	514.5	514.5	514.5	515.6	514.5	515.6	518.6
157.5°	524.8	526.8	528.9	527.8	530.9	530.9	530.9	530.9	528.9	529.9	535.0
160°	537.0	539.1	541.1	541.1	544.2	544.2	544.2	544.2	542.2	542.2	545.2
162.5°	547.3	548.3	551.4	550.3	553.4	553.4	553.4	554.4	552.4	550.3	552.4
165°	558.5	559.6	561.6	560.6	564.7	564.7	564.7	565.7	562.6	560.6	562.6
167.5°	567.7	568.8	571.8	570.8	573.9	573.7	572.9	572.9	570.8	571.8	575.9
170°	574.9	575.9	579.0	578.0	580.0	579.8	579.0	578.0	576.9	579.0	584.1
172.5°	578.0	579.0	582.1	580.0	582.1	581.9	581.0	582.1	580.0	581.0	584.1
175°	580.0	582.1	583.1	582.1	585.1	585.1	585.1	586.2	583.1	581.0	584.1
177.5°	585.1	586.2	588.2	587.2	591.3	591.1	590.2	590.2	587.2	587.2	590.2
180°	589.2	589.2	589.2	589.2	589.2	589.2	589.2	589.2	589.2	589.2	589.2



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	743.6	743.6	743.6	743.6	743.6	743.6	743.6	743.6	743.6	743.6	743.6
2.5°	743.6	741.9	748.6	753.5	755.1	760.2	765.1	768.4	766.8	765.1	765.1
5°	741.9	743.6	755.1	765.1	773.4	781.6	788.3	791.6	789.9	789.9	789.9
7.5°	732.0	738.7	751.9	768.4	780.0	784.9	786.5	781.6	778.4	773.4	773.4
10°	715.6	725.5	747.0	765.1	770.1	763.4	753.5	743.6	730.4	722.1	722.1
12.5°	702.4	713.9	740.3	755.1	748.6	732.0	710.5	694.1	680.9	671.0	669.2
15°	690.7	705.6	733.7	737.0	722.1	694.1	665.9	647.7	632.9	626.3	626.3
17.5°	682.5	702.4	727.1	717.2	687.4	651.1	624.6	609.8	598.2	591.6	589.9
20°	684.1	708.9	720.5	692.4	649.5	611.4	586.7	578.4	570.1	566.8	566.8
22.5°	702.4	725.5	718.8	671.0	614.7	571.7	555.3	553.6	550.2	547.0	545.3
25°	741.9	758.5	723.8	649.5	578.4	535.4	527.1	532.1	530.5	527.1	527.1
27.5°	796.5	799.8	732.0	628.0	538.7	500.7	500.7	509.0	505.6	500.7	504.0
30°	862.7	844.4	735.4	593.2	492.4	467.7	472.6	477.6	474.2	467.7	467.7
32.5°	933.6	890.7	735.4	548.6	447.8	437.9	439.6	441.2	434.7	426.4	426.4
35°	1003.1	935.3	727.1	495.7	413.2	408.2	406.5	413.2	408.2	396.6	396.6
37.5°	1069.2	970.1	705.6	441.2	386.7	385.0	389.9	386.7	380.0	363.6	360.3
40°	1115.4	993.2	662.7	396.6	365.2	375.1	371.8	353.6	343.7	332.2	332.2
42.5°	1156.8	1004.7	609.8	361.9	350.4	363.6	350.4	327.2	313.9	312.3	313.9
45°	1194.8	1014.7	558.5	333.8	332.2	350.4	333.8	309.0	294.1	294.1	295.8
47.5°	1231.1	1024.6	507.3	307.4	310.7	330.5	320.6	295.8	280.9	271.0	271.0
50°	1288.9	1047.7	432.9	279.3	285.9	313.9	310.7	282.5	266.1	251.1	247.9
52.5°	1358.4	1087.3	352.0	249.5	267.7	299.1	299.1	271.0	252.9	233.0	229.7
55°	1450.9	1130.3	282.5	228.0	249.5	282.5	287.6	266.1	239.6	221.5	218.1
57.5°	1543.4	1145.2	228.0	206.5	226.4	266.1	279.3	256.1	224.7	211.5	209.9
60°	1607.9	1097.2	191.7	188.4	209.9	246.2	267.7	244.6	214.8	201.6	201.6
62.5°	1598.0	951.9	171.9	176.9	196.6	231.4	257.8	234.7	208.2	200.0	198.4
65°	1457.5	718.8	155.3	166.9	185.1	216.5	247.9	229.7	204.9	196.6	193.3
67.5°	1227.8	477.6	143.7	157.0	173.5	204.9	239.6	223.1	195.0	190.1	186.7
70°	889.0	279.3	132.2	147.1	161.9	191.7	228.0	209.9	183.4	180.1	171.9
72.5°	480.9	175.1	119.0	133.8	147.1	175.1	209.9	193.3	168.6	155.3	150.4
75°	219.8	127.3	105.8	119.0	128.9	153.6	188.4	170.2	150.4	133.8	130.5
77.5°	147.1	95.9	89.2	102.5	107.4	128.9	166.9	135.5	117.3	105.8	102.5
80°	100.8	71.1	72.7	84.3	82.7	102.5	125.6	109.0	92.6	95.9	87.6
82.5°	64.4	49.6	56.2	59.5	57.8	77.6	97.5	82.7	69.4	57.8	49.6
85°	28.1	26.4	33.0	34.7	34.7	43.0	51.2	41.3	31.4	23.1	23.1
87.5°	1.6	3.3	3.3	4.9	3.3	1.6	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
97.5°	4.1	4.1	5.1	7.2	13.3	9.2	4.1	3.1	2.0	2.0	2.0
100°	25.6	26.6	27.6	30.7	32.7	30.7	22.5	14.3	10.2	8.2	8.2
102.5°	49.1	50.1	49.1	51.1	52.2	51.1	46.0	38.9	32.7	28.6	28.6
105°	70.6	72.6	70.6	72.6	72.6	71.6	67.5	62.4	57.3	55.2	55.2
107.5°	93.1	94.1	93.1	94.1	95.1	93.1	90.0	85.9	81.8	78.8	79.8
110°	115.6	116.6	115.6	116.6	116.6	114.6	112.5	108.4	105.4	104.3	103.3



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	138.1	140.1	138.1	139.1	139.1	137.1	135.0	132.0	128.9	126.8	126.8
115°	162.6	163.7	161.6	161.6	161.6	159.6	157.5	154.5	152.4	150.4	149.4
117.5°	184.1	186.2	184.1	185.2	184.1	183.1	181.1	178.0	175.9	173.9	172.9
120°	208.7	210.7	208.7	208.7	208.7	206.6	205.6	202.5	200.5	199.5	197.4
122.5°	237.3	238.3	234.3	233.2	233.2	232.2	231.2	228.1	226.1	225.0	224.0
125°	261.9	262.9	259.8	259.8	258.8	257.8	256.8	253.7	252.7	251.6	249.6
127.5°	284.4	287.4	284.4	283.4	284.4	282.3	280.3	278.2	276.2	275.2	273.1
130°	310.0	312.0	308.9	307.9	307.9	305.9	304.8	300.7	299.7	298.7	296.7
132.5°	334.5	336.6	333.5	332.5	332.5	329.4	328.4	325.3	324.3	321.2	320.2
135°	358.0	359.1	357.0	356.0	356.0	352.9	352.9	348.8	346.8	344.7	343.7
137.5°	380.5	382.6	378.5	377.5	377.5	375.4	375.4	372.4	371.3	368.3	367.2
140°	403.0	405.1	401.0	399.0	399.0	397.9	396.9	394.9	393.8	391.8	390.8
142.5°	424.5	425.5	422.5	421.5	421.5	419.4	419.4	416.3	417.4	415.3	413.3
145°	445.0	447.0	444.0	442.9	444.0	441.9	440.9	437.8	437.8	435.8	434.8
147.5°	463.4	466.5	463.4	462.4	464.4	463.4	462.4	458.3	457.3	454.2	454.2
150°	480.8	483.9	479.8	479.8	481.8	480.8	479.8	475.7	474.6	472.6	471.6
152.5°	497.2	500.2	497.2	497.2	498.2	497.2	496.1	493.1	494.1	491.0	490.0
155°	516.6	518.6	515.6	514.5	515.6	514.5	514.5	512.5	513.5	511.5	510.5
157.5°	531.9	535.0	529.9	528.9	530.9	530.9	530.9	527.8	528.9	526.8	524.8
160°	543.2	545.2	542.2	542.2	544.2	544.2	544.2	541.1	541.1	539.1	537.0
162.5°	549.3	552.4	550.3	552.4	554.4	553.4	553.4	550.3	551.4	548.3	547.3
165°	560.6	562.6	560.6	562.6	565.7	564.7	564.7	560.6	561.6	559.6	558.5
167.5°	573.9	575.9	571.8	570.8	572.9	572.9	573.9	570.8	571.8	568.8	567.7
170°	582.1	584.1	579.0	576.9	578.0	579.0	580.0	578.0	579.0	575.9	574.9
172.5°	581.0	584.1	581.0	580.0	582.1	581.0	582.1	580.0	582.1	579.0	578.0
175°	581.0	584.1	581.0	583.1	586.2	585.1	585.1	582.1	583.1	582.1	580.0
177.5°	587.2	590.2	587.2	587.2	590.2	590.2	591.3	587.2	588.2	586.2	585.1
180°	589.2	589.2	589.2	589.2	589.2	589.2	589.2	589.2	589.2	589.2	589.2

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