

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: P271589

Luminaire Tested: **ISS-AF-600-LED-E1-T4FT-7027-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P271589
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-600-LED-E1-T4FT-7027-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) 2700K CCT, 70 CRI LEDs and (1) UPLIGHT LED
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4758.4 lumens
Efficiency: N/A
Efficacy: 94.4 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 - G1

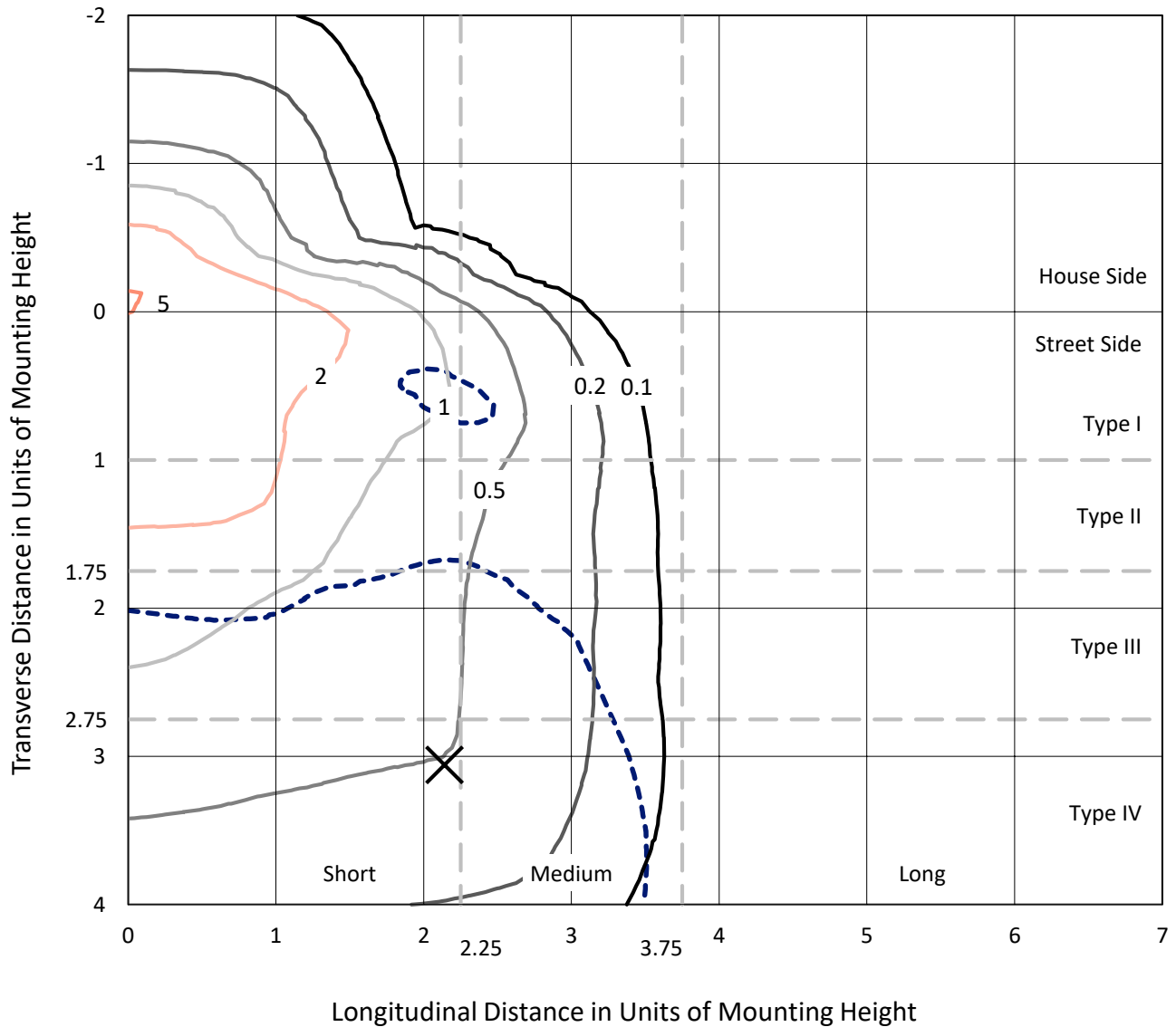
Input Watts (W): 50.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

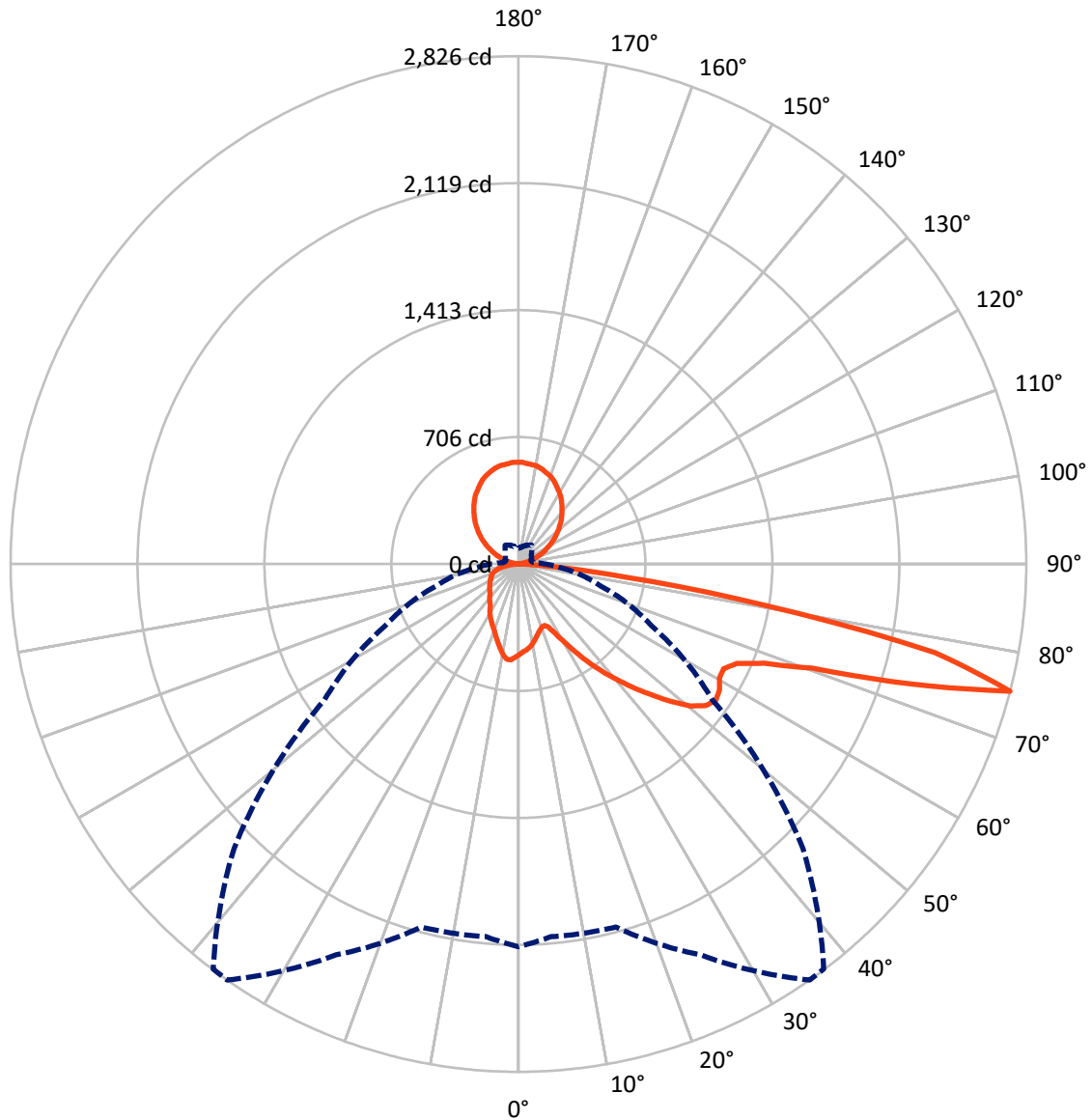
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.1 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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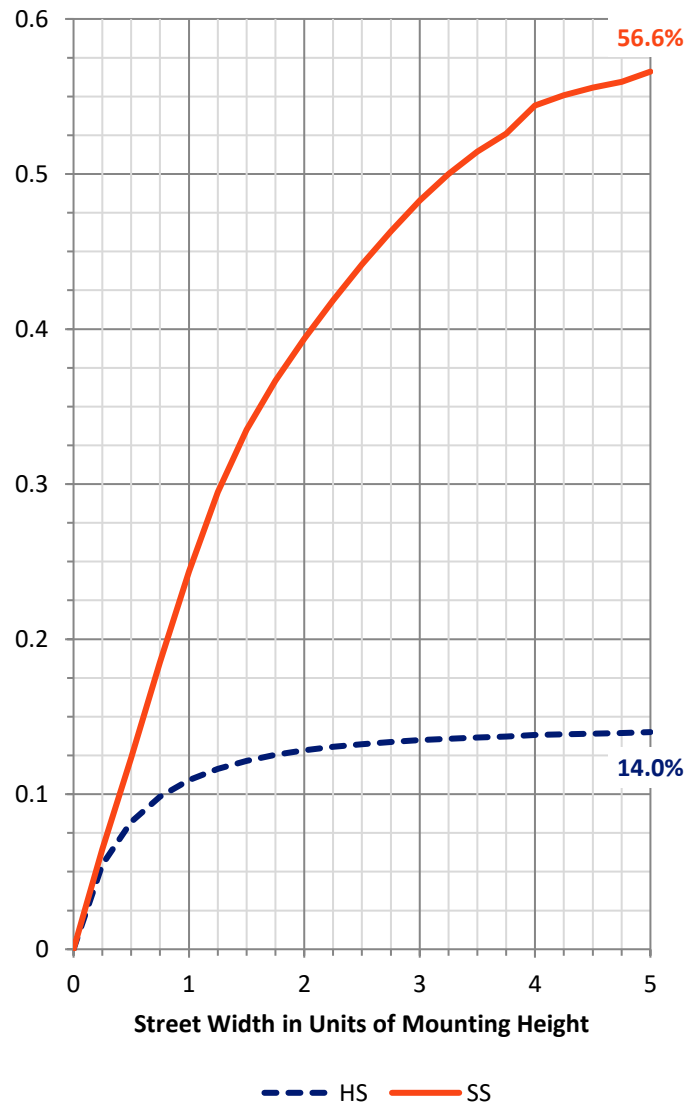
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	674.1	699.9	1374.0
	% Fixture	14.2	14.7	28.9
Street Side	Lumens	2684.5	699.9	3384.4
	% Fixture	56.4	14.7	71.1
Total	Lumens	3358.6	1399.8	4758.4
	% Fixture	70.6	29.4	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.3	1.0
10°-20°	125.0	2.6
20°-30°	197.7	4.2
30°-40°	319.1	6.7
40°-50°	472.2	9.9
50°-60°	607.1	12.8
60°-70°	751.7	15.8
70°-80°	757.5	15.9
80°-90°	80.9	1.7
90°-100°	4.7	0.1
100°-110°	67.7	1.4
110°-120°	150.2	3.2
120°-130°	219.7	4.6
130°-140°	260.7	5.5
140°-150°	264.3	5.6
150°-160°	226.8	4.8
160°-170°	152.2	3.2
170°-180°	53.3	1.1
0°-90°	3358.6	70.6
0°-180°	4758.4	100.0



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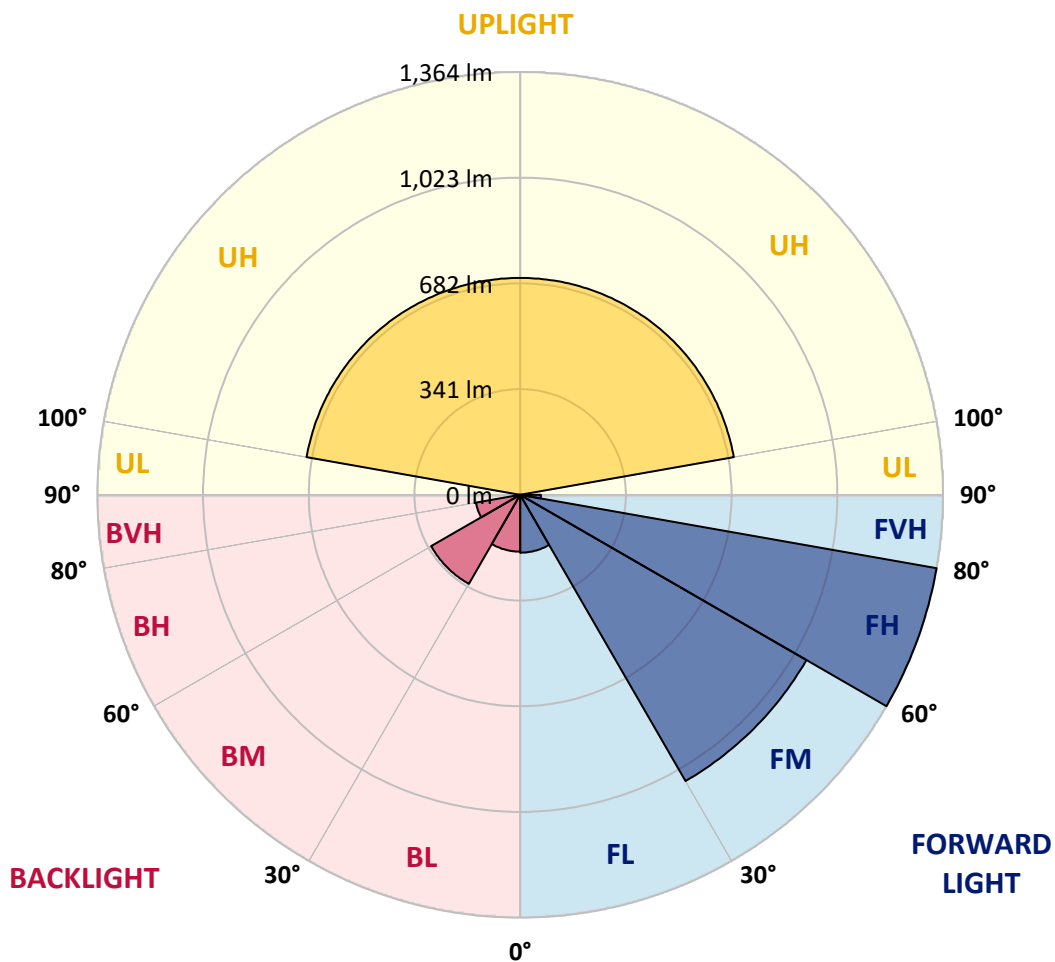
CATALOG NUMBER: ISS-AF-600-LED-E1-T4FT-7027-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	186.8	3.9			
FM (30°-60°)	1066.5	22.4			
FH (60°-80°)	1364.4	28.7			G1/1800
FVH (80°-90°)	66.9	1.4			G1/100
BL (0°-30°)	183.3	3.9	B1/500		
BM (30°-60°)	331.9	7.0	B1/1000		
BH (60°-80°)	144.8	3.0	B1/500		G1/500
BVH (80°-90°)	14.0	0.3			G1/100
UL (90°-100°)	4.7	0.1		U1/10	
UH (100°-180°)	699.9	14.7		U4/1000	

BUG Rating: B1-U5-G1

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	37°	45°	55°	65°	75°	85°
0°	504.6	504.6	504.6	504.6	504.6	504.6	504.6	504.6	504.6	504.6	504.6
2.5°	489.9	488.9	487.7	487.7	489.9	489.9	491.1	492.2	493.3	496.8	501.2
5°	476.6	475.5	474.2	475.5	478.8	478.8	482.1	484.4	486.6	492.2	497.8
7.5°	458.6	458.6	457.5	462.0	465.3	464.2	468.6	470.9	476.6	482.1	491.1
10°	435.0	435.0	435.0	440.7	446.3	446.3	449.6	455.2	459.8	467.6	478.8
12.5°	414.8	413.7	413.7	418.3	425.0	426.1	431.6	439.5	445.1	455.2	467.6
15°	408.1	405.9	400.3	400.3	403.7	403.7	412.6	423.8	432.8	442.9	457.5
17.5°	409.3	405.9	391.3	386.8	386.8	388.0	396.9	409.3	420.5	432.8	451.8
20°	419.3	413.7	386.8	376.7	374.5	375.6	383.5	395.8	409.3	426.1	447.4
22.5°	463.1	454.1	403.7	381.2	371.1	371.1	375.6	389.1	405.9	428.3	455.2
25°	564.0	549.4	459.8	419.3	389.1	385.7	377.8	391.3	411.5	438.5	477.7
27.5°	667.1	652.6	529.2	485.5	438.5	428.3	399.2	402.5	425.0	460.8	511.2
30°	753.5	741.1	616.7	566.2	503.4	492.2	447.4	426.1	448.5	492.2	561.7
32.5°	760.1	754.6	710.9	659.3	583.0	567.3	507.9	474.2	485.5	534.9	616.7
35°	822.9	818.4	794.9	745.6	669.3	651.5	588.6	537.1	533.8	581.9	679.5
37.5°	884.7	879.0	863.3	829.8	759.1	744.4	695.2	612.1	588.6	636.9	741.1
40°	943.0	935.0	914.9	895.9	844.2	844.2	791.6	684.0	641.3	685.0	792.8
42.5°	1050.6	1026.0	972.1	957.5	943.0	943.0	865.6	733.3	684.0	737.8	842.0
45°	1153.7	1130.2	1057.3	1028.2	1036.0	1031.5	925.1	761.3	722.1	787.2	889.1
47.5°	1235.6	1214.3	1140.3	1120.1	1142.6	1124.6	974.3	783.7	770.3	839.7	928.4
50°	1308.5	1258.0	1186.2	1213.3	1241.2	1210.9	1018.0	817.4	818.4	895.9	985.6
52.5°	1208.7	1203.1	1218.8	1281.5	1308.5	1274.9	1057.3	859.9	870.1	967.7	1050.6
55°	1088.7	1087.6	1179.6	1301.7	1334.3	1302.8	1083.1	911.6	923.9	1056.1	1132.4
57.5°	1065.2	1053.9	1116.8	1259.2	1318.5	1296.2	1096.5	959.7	975.5	1168.3	1213.3
60°	1141.4	1120.1	1110.0	1213.3	1284.9	1273.7	1113.4	1016.9	1038.2	1296.2	1288.3
62.5°	1307.3	1278.2	1206.4	1216.6	1281.5	1272.6	1153.7	1084.3	1108.9	1423.9	1330.9
65°	1527.1	1505.8	1391.5	1309.5	1334.3	1321.9	1226.6	1169.4	1182.9	1515.9	1282.7
67.5°	1768.1	1739.0	1614.5	1502.4	1471.1	1447.5	1342.1	1270.3	1222.1	1502.4	1153.7
70°	2040.6	2009.1	1901.6	1786.1	1732.3	1706.5	1544.0	1357.8	1207.5	1354.5	910.4
72.5°	2375.8	2333.3	2273.8	2286.2	2277.2	2205.5	1865.7	1386.9	1101.1	1008.0	543.8
75°	2129.3	2081.0	2091.1	2399.5	2825.5	2822.1	2237.9	1315.2	820.7	475.5	235.4
77.5°	763.6	844.2	1245.7	1797.3	2369.1	2365.8	1732.3	822.9	352.0	202.9	142.4
80°	191.7	195.1	309.5	737.8	1383.6	1372.4	982.2	310.5	147.0	123.3	97.6
82.5°	61.6	66.1	113.3	254.5	592.1	578.6	305.0	102.0	92.0	79.6	59.4
85°	20.2	20.2	40.3	87.5	195.1	187.3	61.6	37.0	50.5	41.5	26.9
87.5°	0.0	0.0	1.1	2.2	4.5	2.2	0.0	2.2	6.7	7.8	5.6
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	3.0	4.0	4.9	8.8	12.8	6.8	4.9	4.0
100°	7.8	7.8	9.8	13.7	21.6	23.2	29.5	31.4	29.5	26.5	25.5
102.5°	27.5	27.5	31.4	37.3	44.2	45.2	49.0	50.0	49.0	47.1	48.1
105°	53.0	53.0	55.0	59.8	64.8	65.6	68.7	69.7	69.7	67.7	69.7
107.5°	76.5	75.5	78.5	82.5	86.3	87.0	89.3	91.3	90.3	89.3	90.3
110°	99.2	100.1	101.1	104.0	108.0	108.3	110.0	111.9	111.9	110.9	111.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	37°	45°	55°	65°	75°	85°
112.5°	121.7	121.7	123.7	126.6	129.5	130.0	131.5	133.5	133.5	132.5	134.5
115°	143.3	144.3	146.2	148.2	151.2	151.5	153.1	155.0	155.0	155.0	157.0
117.5°	165.8	166.8	168.8	170.8	173.7	174.1	175.7	176.7	177.7	176.7	178.7
120°	189.5	191.4	192.3	194.3	197.3	197.4	198.3	200.2	200.2	200.2	202.2
122.5°	215.0	216.0	216.9	218.8	221.8	222.0	222.8	223.8	223.8	224.8	228.7
125°	239.5	241.5	242.5	243.4	246.3	246.6	247.3	248.3	249.3	249.3	252.2
127.5°	262.0	264.0	265.0	267.0	269.0	269.3	270.9	272.8	271.8	272.8	275.8
130°	284.7	286.6	287.5	288.5	292.5	292.7	293.5	295.5	295.5	296.4	299.3
132.5°	307.2	308.2	311.2	312.1	315.0	315.2	316.0	319.0	319.0	320.0	322.9
135°	329.8	330.8	332.7	334.7	338.6	338.6	338.6	341.5	341.5	342.5	344.5
137.5°	352.3	353.3	356.3	357.3	360.2	360.2	360.2	362.2	362.2	363.2	367.0
140°	375.0	375.9	377.8	378.8	380.8	381.0	381.8	382.8	382.8	384.7	388.7
142.5°	396.5	398.5	400.5	399.5	402.4	402.4	402.4	404.3	404.3	405.3	408.3
145°	417.2	418.1	420.0	420.0	423.0	423.2	424.0	426.0	425.0	426.0	428.9
147.5°	435.8	435.8	438.7	439.7	443.7	443.9	444.6	445.6	443.7	444.6	447.5
150°	452.5	453.5	455.4	456.4	460.3	460.5	461.3	462.3	460.3	460.3	464.2
152.5°	470.2	471.1	474.0	473.0	476.0	476.2	477.0	478.0	477.0	477.0	480.0
155°	489.8	490.7	492.7	491.7	493.7	493.7	493.7	494.7	493.7	494.7	497.6
157.5°	503.5	505.5	507.5	506.5	509.4	509.4	509.4	509.4	507.5	508.4	513.3
160°	515.3	517.2	519.2	519.2	522.2	522.2	522.2	522.2	520.2	520.2	523.2
162.5°	525.1	526.0	529.0	528.0	531.0	531.0	531.0	532.0	530.0	528.0	530.0
165°	535.9	536.8	538.8	537.8	541.8	541.8	541.8	542.8	539.8	537.8	539.8
167.5°	544.7	545.7	548.7	547.7	550.6	550.4	549.7	549.7	547.7	548.7	552.5
170°	551.6	552.5	555.5	554.5	556.5	556.3	555.5	554.5	553.5	555.5	560.5
172.5°	554.5	555.5	558.5	556.5	558.5	558.3	557.5	558.5	556.5	557.5	560.5
175°	556.5	558.5	559.5	558.5	561.4	561.4	561.4	562.4	559.5	557.5	560.5
177.5°	561.4	562.4	564.3	563.3	567.3	567.1	566.3	566.3	563.3	563.3	566.3
180°	565.3	565.3	565.3	565.3	565.3	565.3	565.3	565.3	565.3	565.3	565.3



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	504.6	504.6	504.6	504.6	504.6	504.6	504.6	504.6	504.6	504.6	504.6
2.5°	504.6	503.4	507.9	511.2	512.4	515.8	519.1	521.4	520.3	519.1	519.1
5°	503.4	504.6	512.4	519.1	524.7	530.3	534.9	537.1	536.0	536.0	536.0
7.5°	496.8	501.2	510.1	521.4	529.2	532.5	533.8	530.3	528.1	524.7	524.7
10°	485.5	492.2	506.8	519.1	522.5	518.1	511.2	504.6	495.5	489.9	489.9
12.5°	476.6	484.4	502.3	512.4	507.9	496.8	482.1	470.9	462.0	455.2	454.1
15°	468.6	478.8	497.8	500.1	489.9	470.9	451.8	439.5	429.4	425.0	425.0
17.5°	463.1	476.6	493.3	486.6	466.4	441.8	423.8	413.7	405.9	401.5	400.3
20°	464.2	481.0	488.9	469.8	440.7	414.8	397.9	392.4	386.8	384.6	384.6
22.5°	476.6	492.2	487.7	455.2	417.2	388.0	376.7	375.6	373.3	371.1	370.0
25°	503.4	514.7	491.1	440.7	392.4	363.3	357.6	361.0	360.0	357.6	357.6
27.5°	540.4	542.7	496.8	426.1	365.5	339.6	339.6	345.4	343.2	339.6	342.0
30°	585.2	573.0	499.0	402.5	334.1	317.3	320.7	324.0	321.9	317.3	317.3
32.5°	633.5	604.3	499.0	372.3	303.9	297.1	298.2	299.3	294.8	289.3	289.3
35°	680.6	634.7	493.3	336.3	280.3	276.9	275.8	280.3	276.9	269.1	269.1
37.5°	725.4	658.2	478.8	299.3	262.3	261.2	264.6	262.3	257.8	246.7	244.4
40°	756.8	673.9	449.6	269.1	247.8	254.5	252.2	239.9	233.2	225.4	225.4
42.5°	784.8	681.7	413.7	245.6	237.7	246.7	237.7	222.0	213.1	211.9	213.1
45°	810.6	688.4	378.9	226.6	225.4	237.7	226.6	209.7	199.5	199.5	200.7
47.5°	835.3	695.2	344.2	208.6	210.8	224.3	217.5	200.7	190.6	184.0	184.0
50°	874.6	710.9	293.7	189.5	193.9	213.1	210.8	191.7	180.5	170.4	168.3
52.5°	921.6	737.8	238.8	169.3	181.6	202.9	202.9	184.0	171.6	158.1	155.9
55°	984.5	767.0	191.7	154.7	169.3	191.7	195.1	180.5	162.5	150.3	148.0
57.5°	1047.2	777.0	154.7	140.1	153.6	180.5	189.5	173.8	152.5	143.5	142.4
60°	1090.9	744.4	130.1	127.8	142.4	167.1	181.6	166.0	145.7	136.8	136.8
62.5°	1084.3	645.8	116.6	119.9	133.4	156.9	174.9	159.2	141.2	135.6	134.6
65°	988.9	487.7	105.4	113.3	125.5	147.0	168.3	155.9	139.1	133.4	131.2
67.5°	833.1	324.0	97.6	106.4	117.7	139.1	162.5	151.4	132.3	129.0	126.8
70°	603.2	189.5	89.7	99.8	110.0	130.1	154.7	142.4	124.4	122.2	116.6
72.5°	326.3	118.8	80.8	90.8	99.8	118.8	142.4	131.2	114.4	105.4	102.0
75°	149.1	86.3	71.8	80.8	87.5	104.2	127.8	115.5	102.0	90.8	88.6
77.5°	99.8	65.0	60.5	69.5	72.9	87.5	113.3	92.0	79.6	71.8	69.5
80°	68.5	48.1	49.4	57.2	56.1	69.5	85.2	74.0	62.8	65.0	59.4
82.5°	43.7	33.7	38.1	40.3	39.3	52.7	66.1	56.1	47.1	39.3	33.7
85°	19.0	18.0	22.4	23.5	23.5	29.1	34.8	28.0	21.3	15.7	15.7
87.5°	1.1	2.2	2.2	3.3	2.2	1.1	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°	4.0	4.0	4.9	6.8	12.8	8.8	4.0	3.0	2.0	2.0	2.0
100°	24.5	25.5	26.5	29.5	31.4	29.5	21.6	13.7	9.8	7.8	7.8
102.5°	47.1	48.1	47.1	49.0	50.0	49.0	44.2	37.3	31.4	27.5	27.5
105°	67.7	69.7	67.7	69.7	69.7	68.7	64.8	59.8	55.0	53.0	53.0
107.5°	89.3	90.3	89.3	90.3	91.3	89.3	86.3	82.5	78.5	75.5	76.5
110°	110.9	111.9	110.9	111.9	111.9	110.0	108.0	104.0	101.1	100.1	99.2



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CATALOG NUMBER: ISS-AF-600-LED-E1-T4FT-7027-ULG

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	132.5	134.5	132.5	133.5	133.5	131.5	129.5	126.6	123.7	121.7	121.7
115°	156.0	157.0	155.0	155.0	155.0	153.1	151.2	148.2	146.2	144.3	143.3
117.5°	176.7	178.7	176.7	177.7	176.7	175.7	173.7	170.8	168.8	166.8	165.8
120°	200.2	202.2	200.2	200.2	200.2	198.3	197.3	194.3	192.3	191.4	189.5
122.5°	227.7	228.7	224.8	223.8	223.8	222.8	221.8	218.8	216.9	216.0	215.0
125°	251.3	252.2	249.3	249.3	248.3	247.3	246.3	243.4	242.5	241.5	239.5
127.5°	272.8	275.8	272.8	271.8	272.8	270.9	269.0	267.0	265.0	264.0	262.0
130°	297.4	299.3	296.4	295.5	295.5	293.5	292.5	288.5	287.5	286.6	284.7
132.5°	321.0	322.9	320.0	319.0	319.0	316.0	315.0	312.1	311.2	308.2	307.2
135°	343.5	344.5	342.5	341.5	341.5	338.6	338.6	334.7	332.7	330.8	329.8
137.5°	365.1	367.0	363.2	362.2	362.2	360.2	360.2	357.3	356.3	353.3	352.3
140°	386.7	388.7	384.7	382.8	382.8	381.8	380.8	378.8	377.8	375.9	375.0
142.5°	407.3	408.3	405.3	404.3	404.3	402.4	402.4	399.5	400.5	398.5	396.5
145°	427.0	428.9	426.0	425.0	426.0	424.0	423.0	420.0	420.0	418.1	417.2
147.5°	444.6	447.5	444.6	443.7	445.6	444.6	443.7	439.7	438.7	435.8	435.8
150°	461.3	464.2	460.3	460.3	462.3	461.3	460.3	456.4	455.4	453.5	452.5
152.5°	477.0	480.0	477.0	477.0	478.0	477.0	476.0	473.0	474.0	471.1	470.2
155°	495.7	497.6	494.7	493.7	494.7	493.7	493.7	491.7	492.7	490.7	489.8
157.5°	510.3	513.3	508.4	507.5	509.4	509.4	509.4	506.5	507.5	505.5	503.5
160°	521.2	523.2	520.2	520.2	522.2	522.2	522.2	519.2	519.2	517.2	515.3
162.5°	527.0	530.0	528.0	530.0	532.0	531.0	531.0	528.0	529.0	526.0	525.1
165°	537.8	539.8	537.8	539.8	542.8	541.8	541.8	537.8	538.8	536.8	535.9
167.5°	550.6	552.5	548.7	547.7	549.7	549.7	550.6	547.7	548.7	545.7	544.7
170°	558.5	560.5	555.5	553.5	554.5	555.5	556.5	554.5	555.5	552.5	551.6
172.5°	557.5	560.5	557.5	556.5	558.5	557.5	558.5	556.5	558.5	555.5	554.5
175°	557.5	560.5	557.5	559.5	562.4	561.4	561.4	558.5	559.5	558.5	556.5
177.5°	563.3	566.3	563.3	563.3	566.3	566.3	567.3	563.3	564.3	562.4	561.4
180°	565.3	565.3	565.3	565.3	565.3	565.3	565.3	565.3	565.3	565.3	565.3

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