

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: P228714

Luminaire Tested: **ISS-AF-450-LED-E1-RW-7030-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P228714
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29765)-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-450-LED-E1-RW-7030-ULG
Description: IMPACT ELITE LED QUATER SPHERE LUMINAIRE WITH UPLIGHT
LIGHT SQUARE WITH ACCUED OPTICS-RECTANGULAR WIDE TYPE I, WITH UPLIGHT
GLOW
Light Source: (16) 3000K CCT, 70 CRI LEDs and (1) UPLIGHT LED
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4071.2 lumens
Efficiency: N/A
Efficacy: 96.9 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.54')
IES Classification: Type II - Medium - Non-Cutoff
BUG Rating: B1 - U5 - G1

Input Watts (W): 42.01
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

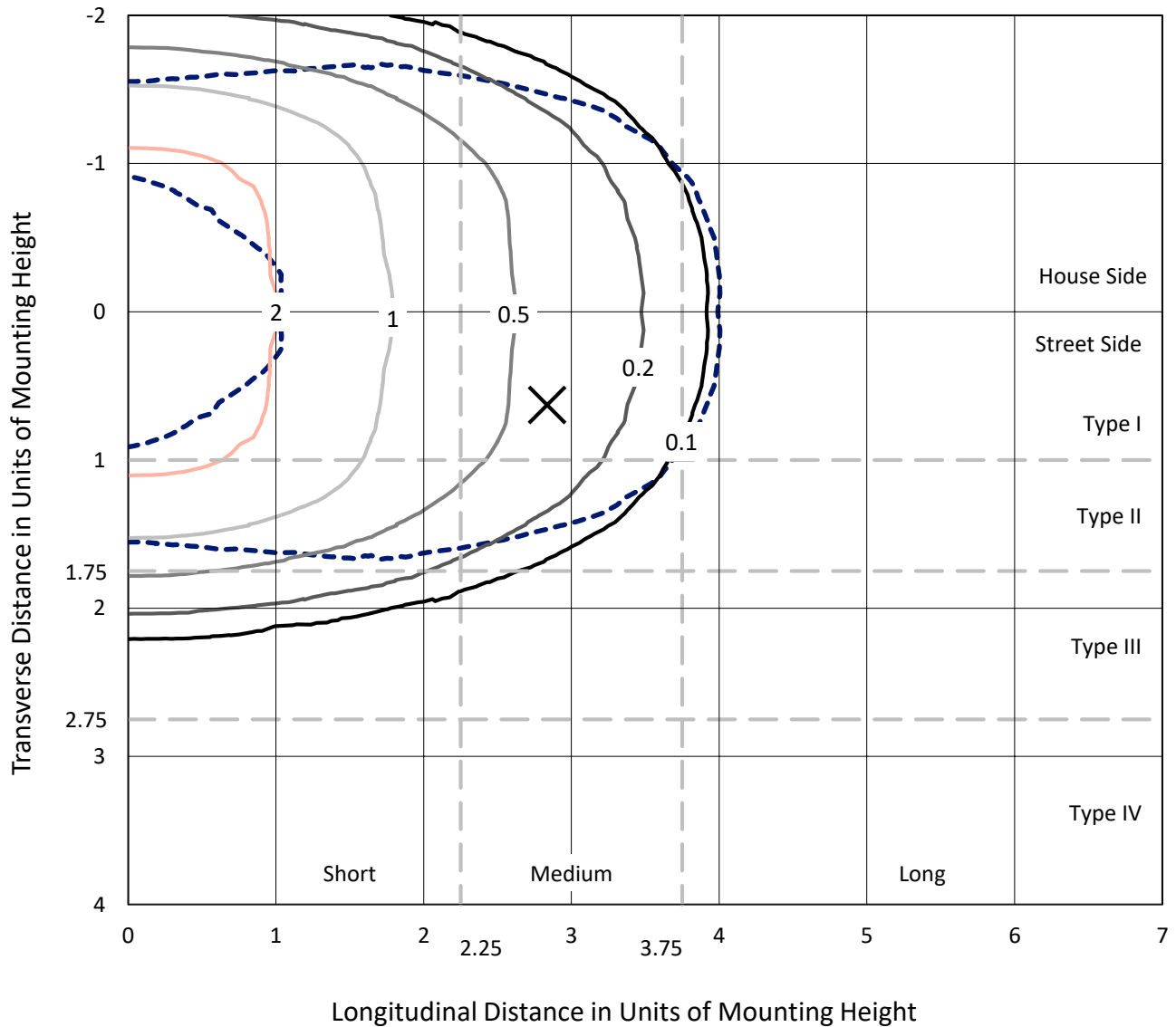


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

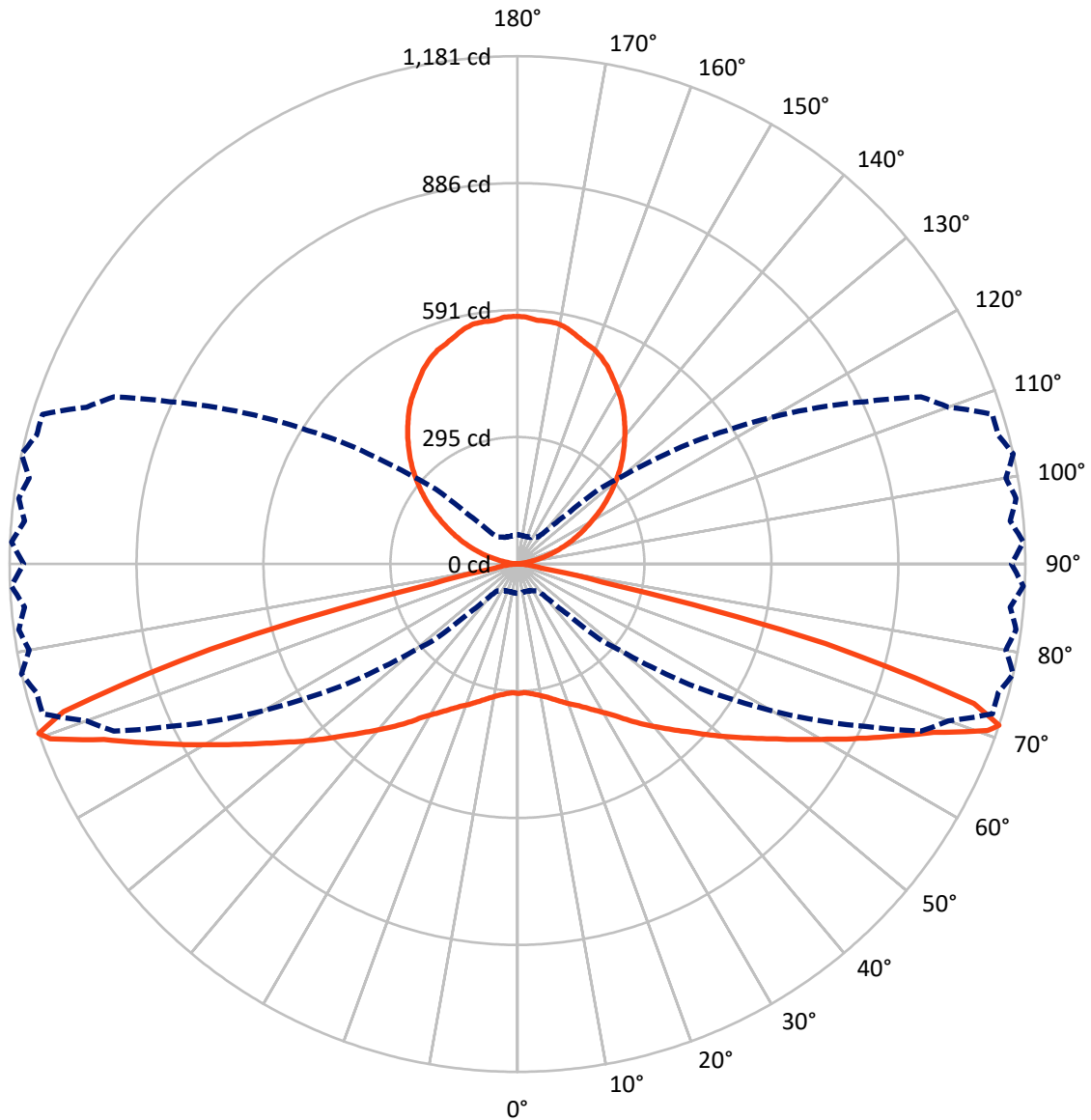


Based on 10 foot mounting height. Maximum calculated value = 3.1 fc
 Type II - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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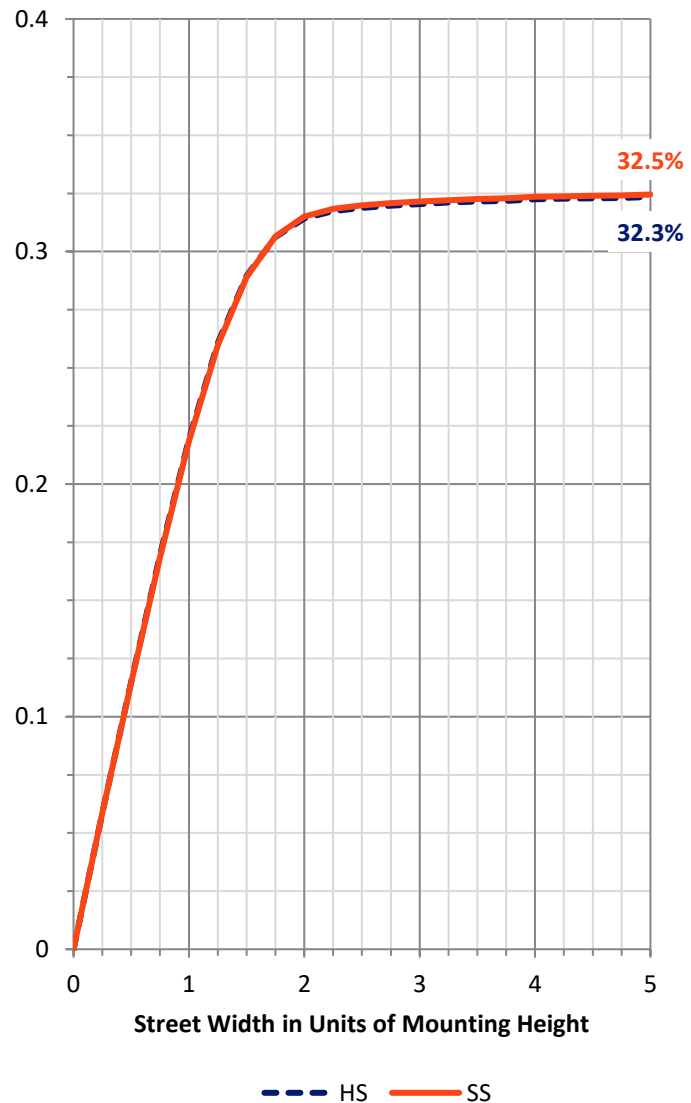
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1322.5	713.1	2035.6
	% Fixture	32.5	17.5	50.0
Street Side	Lumens	1322.5	713.1	2035.6
	% Fixture	32.5	17.5	50.0
Total	Lumens	2645.0	1426.2	4071.2
	% Fixture	65.0	35.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.1	0.7
10°-20°	90.9	2.2
20°-30°	170.1	4.2
30°-40°	296.1	7.3
40°-50°	483.2	11.9
50°-60°	666.8	16.4
60°-70°	632.5	15.5
70°-80°	260.4	6.4
80°-90°	15.7	0.4
90°-100°	4.7	0.1
100°-110°	69.0	1.7
110°-120°	153.0	3.8
120°-130°	223.9	5.5
130°-140°	265.6	6.5
140°-150°	269.3	6.6
150°-160°	231.1	5.7
160°-170°	155.1	3.8
170°-180°	54.3	1.3
0°-90°	2645.0	65.0
0°-180°	4071.2	100.0



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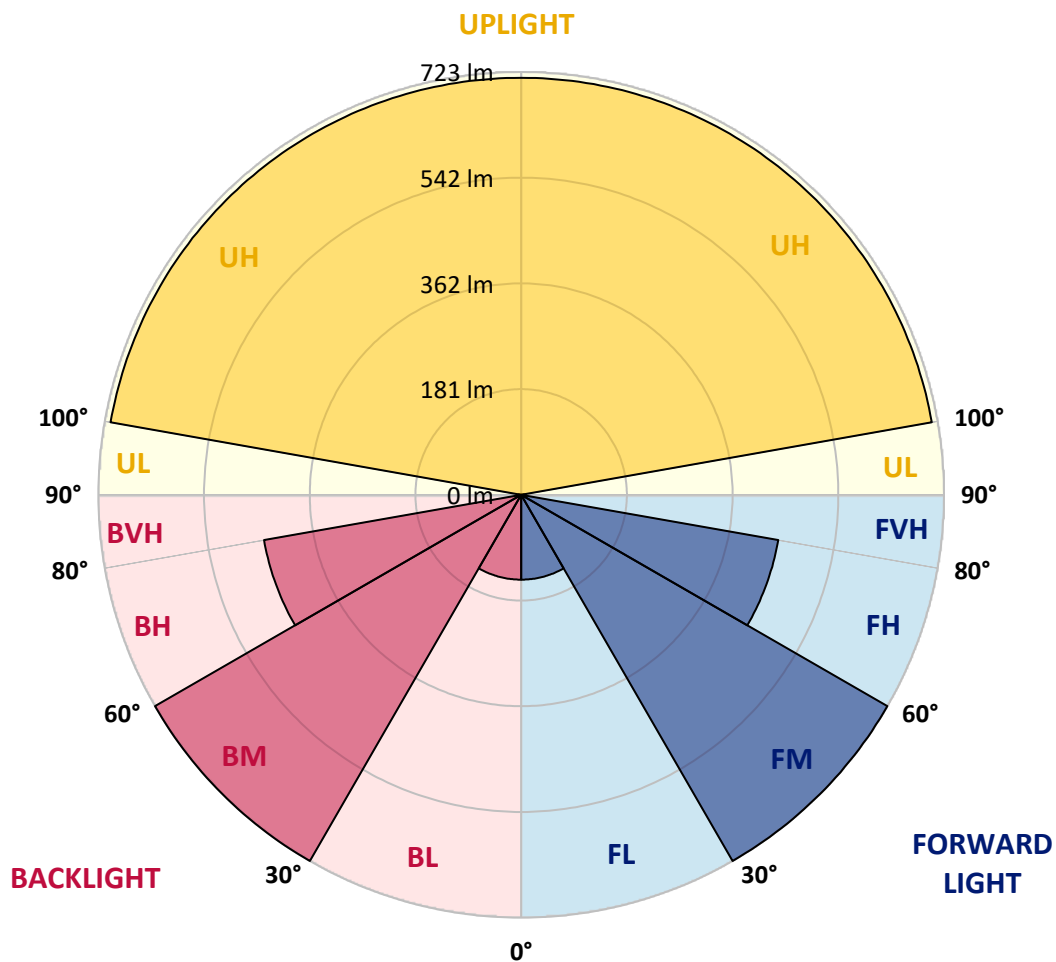
CATALOG NUMBER: ISS-AF-450-LED-E1-RW-7030-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	145.1	3.6			
FM	(30°-60°)	723.1	17.8			
FH	(60°-80°)	446.5	11.0			G0/660
FVH	(80°-90°)	7.9	0.2			G0/10
BL	(0°-30°)	145.1	3.6	B1/500		
BM	(30°-60°)	723.1	17.8	B1/1000		
BH	(60°-80°)	446.5	11.0	B1/500		G1/500
BVH	(80°-90°)	7.9	0.2			G0/10
UL	(90°-100°)	4.7	0.1		U1/10	
UH	(100°-180°)	713.1	17.5		U4/1000	

BUG Rating: B1-U5-G1

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	37.5°	40°	42.5°	45°	47.5°	50°
0°	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2
2.5°	300.3	299.4	300.3	300.3	301.2	301.2	301.2	301.2	300.3	302.1	302.1
5°	300.3	300.3	301.2	301.2	302.9	304.7	302.1	302.9	303.8	302.9	304.7
7.5°	300.3	300.3	300.3	302.1	304.7	306.4	304.7	305.6	307.3	307.3	309.1
10°	297.7	296.8	298.6	302.1	306.4	309.1	308.2	311.7	310.8	311.7	313.4
12.5°	293.3	293.3	296.8	302.1	309.9	311.7	312.6	314.3	316.9	316.1	318.7
15°	294.2	295.1	298.6	305.6	315.2	316.9	317.8	317.8	322.2	320.4	325.7
17.5°	300.3	301.2	304.7	311.7	323.1	323.1	323.9	325.7	331.8	328.3	335.3
20°	309.9	310.8	314.3	322.2	332.7	331.8	333.6	335.3	343.2	339.7	346.7
22.5°	321.3	323.1	327.4	336.2	347.6	342.3	345.8	349.3	357.2	351.1	360.7
25°	337.1	339.7	344.1	353.7	366.0	359.8	363.3	366.0	374.7	366.0	375.6
27.5°	359.8	361.6	365.1	375.6	386.1	381.7	383.5	385.2	395.7	386.1	396.6
30°	387.0	389.6	393.1	402.7	413.2	406.2	409.7	411.5	420.3	410.6	419.4
32.5°	421.1	423.8	428.1	436.9	445.6	435.1	436.0	438.6	447.4	437.8	447.4
35°	461.4	463.2	469.3	479.8	485.9	469.3	470.2	470.2	481.5	468.4	478.9
37.5°	503.4	505.2	512.2	522.7	529.7	511.3	511.3	512.2	522.7	507.8	517.4
40°	547.2	552.5	560.3	570.8	576.1	555.1	556.8	556.0	568.2	550.7	560.3
42.5°	591.0	595.4	606.7	619.0	625.1	604.1	605.0	602.4	614.6	596.2	604.1
45°	628.6	632.1	646.1	663.6	673.3	651.4	651.4	651.4	663.6	640.9	650.5
47.5°	659.3	661.9	676.8	702.2	717.9	696.0	697.8	694.3	712.7	684.7	697.8
50°	681.2	682.0	701.3	730.2	757.3	737.2	739.8	741.6	759.1	734.6	745.9
52.5°	688.2	689.9	711.8	746.8	786.2	773.1	782.7	786.2	802.0	775.7	791.5
55°	663.6	668.0	701.3	753.0	806.4	802.0	813.4	820.4	840.5	818.6	835.2
57.5°	581.3	586.6	633.0	717.9	810.7	817.7	833.5	844.9	873.8	860.6	879.0
60°	464.0	468.4	515.7	618.1	755.6	798.5	834.4	866.8	896.5	899.2	922.8
62.5°	318.7	324.8	370.3	468.4	635.6	692.5	744.2	797.6	847.5	907.9	938.6
65°	155.8	159.3	197.9	292.4	466.7	539.3	599.7	675.0	721.4	808.1	858.0
67.5°	85.8	85.8	91.9	121.7	249.5	321.3	386.1	480.7	527.9	634.8	698.7
70°	71.8	71.8	70.0	74.4	94.6	112.1	145.3	199.6	265.3	373.0	430.8
71°	68.3	67.4	66.5	68.3	76.2	79.7	93.7	122.6	166.3	257.4	314.3
72.5°	63.9	62.2	59.5	60.4	64.8	64.8	67.4	71.8	88.4	120.8	162.0
75°	55.2	53.4	50.8	50.8	51.7	52.5	53.4	55.2	56.0	57.8	64.8
77.5°	45.5	43.8	41.1	41.1	40.3	41.1	42.9	43.8	42.0	45.5	46.4
80°	35.0	32.4	31.5	31.5	30.6	29.8	29.8	29.8	30.6	32.4	33.3
82.5°	21.9	20.1	21.0	20.1	19.3	19.3	19.3	19.3	20.1	20.1	21.9
85°	10.5	10.5	11.4	10.5	8.8	8.8	7.9	7.0	7.9	7.0	8.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
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	5.2	6.5	7.8	9.0	10.0	11.0
100°	8.0	8.0	10.0	14.0	22.0	24.0	26.0	28.0	30.0	30.5	31.0
102.5°	28.0	28.0	32.0	38.0	45.0	46.2	47.5	48.8	50.0	50.2	50.5
105°	54.0	54.0	56.0	61.0	66.0	67.0	68.0	69.0	70.0	70.2	70.5
107.5°	78.0	77.0	80.0	84.0	88.0	88.8	89.5	90.2	91.0	91.5	92.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	37.5°	40°	42.5°	45°	47.5°	50°
110°	101.0	102.0	103.0	106.0	110.0	110.5	111.0	111.5	112.0	112.5	113.0
112.5°	124.0	124.0	126.0	129.0	132.0	132.5	133.0	133.5	134.0	134.5	135.0
115°	146.0	147.0	149.0	151.0	154.0	154.5	155.0	155.5	156.0	156.5	157.0
117.5°	169.0	170.0	172.0	174.0	177.0	177.5	178.0	178.5	179.0	179.2	179.5
120°	193.0	195.0	196.0	198.0	201.0	201.2	201.5	201.8	202.0	202.5	203.0
122.5°	219.0	220.0	221.0	223.0	226.0	226.2	226.5	226.8	227.0	227.2	227.5
125°	244.0	246.0	247.0	248.0	251.0	251.2	251.5	251.8	252.0	252.2	252.5
127.5°	267.0	269.0	270.0	272.0	274.0	274.5	275.0	275.5	276.0	276.5	277.0
130°	290.0	292.0	293.0	294.0	298.0	298.2	298.5	298.8	299.0	299.5	300.0
132.5°	313.0	314.0	317.0	318.0	321.0	321.2	321.5	321.8	322.0	322.8	323.5
135°	336.0	337.0	339.0	341.0	345.0	345.0	345.0	345.0	345.0	345.8	346.5
137.5°	359.0	360.0	363.0	364.0	367.0	367.0	367.0	367.0	367.0	367.5	368.0
140°	382.0	383.0	385.0	386.0	388.0	388.2	388.5	388.8	389.0	389.2	389.5
142.5°	404.0	406.0	408.0	407.0	410.0	410.0	410.0	410.0	410.0	410.5	411.0
145°	425.0	426.0	428.0	428.0	431.0	431.2	431.5	431.8	432.0	432.5	433.0
147.5°	444.0	444.0	447.0	448.0	452.0	452.2	452.5	452.8	453.0	453.2	453.5
150°	461.0	462.0	464.0	465.0	469.0	469.2	469.5	469.8	470.0	470.2	470.5
152.5°	479.0	480.0	483.0	482.0	485.0	485.2	485.5	485.8	486.0	486.2	486.5
155°	499.0	500.0	502.0	501.0	503.0	503.0	503.0	503.0	503.0	503.2	503.5
157.5°	513.0	515.0	517.0	516.0	519.0	519.0	519.0	519.0	519.0	519.0	519.0
160°	525.0	527.0	529.0	529.0	532.0	532.0	532.0	532.0	532.0	532.0	532.0
162.5°	535.0	536.0	539.0	538.0	541.0	541.0	541.0	541.0	541.0	541.2	541.5
165°	546.0	547.0	549.0	548.0	552.0	552.0	552.0	552.0	552.0	552.2	552.5
167.5°	555.0	556.0	559.0	558.0	561.0	560.8	560.5	560.2	560.0	560.0	560.0
170°	562.0	563.0	566.0	565.0	567.0	566.8	566.5	566.2	566.0	565.8	565.5
172.5°	565.0	566.0	569.0	567.0	569.0	568.8	568.5	568.2	568.0	568.2	568.5
175°	567.0	569.0	570.0	569.0	572.0	572.0	572.0	572.0	572.0	572.2	572.5
177.5°	572.0	573.0	575.0	574.0	578.0	577.8	577.5	577.2	577.0	577.0	577.0
180°	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0



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CANDELA DISTRIBUTION (continued):

	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°
0°	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2
2.5°	299.4	301.2	300.3	301.2	299.4	301.2	298.6	301.2	300.3	301.2	299.4
5°	302.1	304.7	302.1	305.6	302.1	305.6	302.1	305.6	302.9	305.6	302.1
7.5°	304.7	309.9	306.4	310.8	306.4	311.7	306.4	311.7	308.2	312.6	306.4
10°	309.9	316.1	310.8	316.1	310.8	316.9	310.8	317.8	312.6	319.6	311.7
12.5°	314.3	321.3	316.1	323.1	315.2	324.8	316.9	327.4	318.7	329.2	318.7
15°	320.4	329.2	323.9	331.8	323.9	334.4	324.8	337.1	327.4	338.8	327.4
17.5°	329.2	338.8	331.8	341.5	332.7	344.1	333.6	346.7	337.1	348.5	337.1
20°	341.5	349.3	342.3	352.8	343.2	353.7	345.0	355.5	347.6	358.1	347.6
22.5°	355.5	362.5	357.2	363.3	354.6	363.3	354.6	363.3	357.2	366.0	357.2
25°	371.2	376.5	370.3	376.5	368.6	375.6	367.7	374.7	368.6	376.5	370.3
27.5°	392.2	394.9	387.9	393.1	383.5	390.5	381.7	388.7	382.6	389.6	385.2
30°	415.0	417.6	410.6	414.1	403.6	408.0	398.4	404.5	399.2	404.5	401.9
32.5°	440.4	443.9	436.0	437.8	429.0	429.9	422.0	424.6	420.3	422.0	421.1
35°	469.3	473.7	464.9	467.5	457.9	457.9	450.9	450.0	448.3	446.5	446.5
37.5°	506.1	507.8	500.8	500.8	489.4	489.4	480.7	480.7	477.2	473.7	471.9
40°	546.3	547.2	535.8	534.9	523.6	523.6	513.9	511.3	505.2	500.8	498.2
42.5°	589.2	588.4	571.7	573.5	556.8	557.7	545.5	542.8	536.7	531.4	526.2
45°	633.0	629.5	612.9	612.0	592.7	593.6	578.7	577.0	568.2	563.0	556.8
47.5°	677.7	675.9	657.5	653.1	633.0	632.1	612.9	612.9	604.1	598.9	592.7
50°	724.1	723.2	702.2	699.5	678.5	675.0	652.3	652.3	641.8	640.0	631.3
52.5°	774.8	771.3	748.6	747.7	727.6	724.9	700.4	698.7	682.9	682.0	672.4
55°	824.7	818.6	803.7	796.7	776.6	775.7	753.8	749.4	729.3	729.3	717.1
57.5°	870.3	865.0	852.8	846.6	827.4	824.7	801.1	801.1	783.6	782.7	769.6
60°	917.5	919.3	906.2	903.5	885.2	884.3	860.6	860.6	843.1	842.3	827.4
62.5°	957.8	975.3	970.1	971.8	956.1	953.4	929.8	928.1	907.9	905.3	893.0
65°	918.4	979.7	1019.1	1045.4	1043.6	1042.7	1020.0	1016.5	991.1	984.1	964.0
67.5°	771.3	851.0	922.8	1001.6	1059.4	1103.2	1116.3	1111.0	1089.2	1069.0	1044.5
70°	516.6	608.5	699.5	797.6	896.5	992.8	1091.8	1134.7	1180.2	1164.4	1160.1
71°	393.1	487.7	578.7	682.0	787.1	893.9	1015.6	1066.4	1158.3	1157.4	1181.1
72.5°	221.5	305.6	402.7	492.9	591.9	702.2	827.4	883.4	1015.6	1041.9	1110.2
75°	70.9	97.2	128.7	203.1	264.4	365.1	457.9	513.9	601.5	645.3	740.7
77.5°	47.3	52.5	54.3	63.0	70.9	100.7	136.6	167.2	183.9	192.6	202.2
80°	34.1	36.8	38.5	42.9	43.8	49.0	49.0	54.3	53.4	56.9	54.3
82.5°	21.9	24.5	25.4	27.1	28.0	31.5	33.3	36.8	36.8	38.5	37.6
85°	10.5	12.3	12.3	14.0	14.0	16.6	16.6	19.3	19.3	21.9	21.0
87.5°	0.9	0.9	0.9	1.8	1.8	1.8	2.6	3.5	3.5	3.5	3.5
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°	12.0	13.0	11.5	10.0	8.5	7.0	6.5	6.0	5.5	5.0	4.8
100°	31.5	32.0	31.5	31.0	30.5	30.0	29.2	28.5	27.8	27.0	26.8
102.5°	50.8	51.0	50.8	50.5	50.2	50.0	49.5	49.0	48.5	48.0	48.2
105°	70.8	71.0	71.0	71.0	71.0	71.0	70.5	70.0	69.5	69.0	69.5
107.5°	92.5	93.0	92.8	92.5	92.2	92.0	91.8	91.5	91.2	91.0	91.2



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CATALOG NUMBER: ISS-AF-450-LED-E1-RW-7030-ULG

CANDELA DISTRIBUTION (continued):

	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°
110°	113.5	114.0	114.0	114.0	114.0	114.0	113.8	113.5	113.2	113.0	113.2
112.5°	135.5	136.0	136.0	136.0	136.0	136.0	135.8	135.5	135.2	135.0	135.5
115°	157.5	158.0	158.0	158.0	158.0	158.0	158.0	158.0	158.0	158.0	158.5
117.5°	179.8	180.0	180.2	180.5	180.8	181.0	180.8	180.5	180.2	180.0	180.5
120°	203.5	204.0	204.0	204.0	204.0	204.0	204.0	204.0	204.0	204.0	204.5
122.5°	227.8	228.0	228.0	228.0	228.0	228.0	228.2	228.5	228.8	229.0	230.0
125°	252.8	253.0	253.2	253.5	253.8	254.0	254.0	254.0	254.0	254.0	254.8
127.5°	277.5	278.0	277.8	277.5	277.2	277.0	277.2	277.5	277.8	278.0	278.8
130°	300.5	301.0	301.0	301.0	301.0	301.0	301.2	301.5	301.8	302.0	302.8
132.5°	324.2	325.0	325.0	325.0	325.0	325.0	325.2	325.5	325.8	326.0	326.8
135°	347.2	348.0	348.0	348.0	348.0	348.0	348.2	348.5	348.8	349.0	349.5
137.5°	368.5	369.0	369.0	369.0	369.0	369.0	369.2	369.5	369.8	370.0	371.0
140°	389.8	390.0	390.0	390.0	390.0	390.0	390.5	391.0	391.5	392.0	393.0
142.5°	411.5	412.0	412.0	412.0	412.0	412.0	412.2	412.5	412.8	413.0	413.8
145°	433.5	434.0	433.8	433.5	433.2	433.0	433.2	433.5	433.8	434.0	434.8
147.5°	453.8	454.0	453.5	453.0	452.5	452.0	452.2	452.5	452.8	453.0	453.8
150°	470.8	471.0	470.5	470.0	469.5	469.0	469.0	469.0	469.0	469.0	470.0
152.5°	486.8	487.0	486.8	486.5	486.2	486.0	486.0	486.0	486.0	486.0	486.8
155°	503.8	504.0	503.8	503.5	503.2	503.0	503.2	503.5	503.8	504.0	504.8
157.5°	519.0	519.0	518.5	518.0	517.5	517.0	517.2	517.5	517.8	518.0	519.2
160°	532.0	532.0	531.5	531.0	530.5	530.0	530.0	530.0	530.0	530.0	530.8
162.5°	541.8	542.0	541.5	541.0	540.5	540.0	539.5	539.0	538.5	538.0	538.5
165°	552.8	553.0	552.2	551.5	550.8	550.0	549.5	549.0	548.5	548.0	548.5
167.5°	560.0	560.0	559.5	559.0	558.5	558.0	558.2	558.5	558.8	559.0	560.0
170°	565.2	565.0	564.8	564.5	564.2	564.0	564.5	565.0	565.5	566.0	567.2
172.5°	568.8	569.0	568.5	568.0	567.5	567.0	567.2	567.5	567.8	568.0	568.8
175°	572.8	573.0	572.2	571.5	570.8	570.0	569.5	569.0	568.5	568.0	568.8
177.5°	577.0	577.0	576.2	575.5	574.8	574.0	574.0	574.0	574.0	574.0	574.8
180°	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0



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CANDELA DISTRIBUTION (continued):

	80°	82.5°	85°	87.5°	90°
0°	301.2	301.2	301.2	301.2	301.2
2.5°	302.1	301.2	302.1	300.3	302.1
5°	306.4	302.9	307.3	302.9	307.3
7.5°	313.4	309.1	314.3	307.3	313.4
10°	319.6	313.4	320.4	313.4	319.6
12.5°	330.1	320.4	331.8	320.4	331.8
15°	340.6	329.2	343.2	330.9	342.3
17.5°	350.2	339.7	352.8	340.6	352.0
20°	359.0	349.3	360.7	348.5	360.7
22.5°	367.7	361.6	370.3	361.6	370.3
25°	379.1	374.7	380.9	374.7	380.9
27.5°	392.2	390.5	394.0	389.6	394.9
30°	407.1	408.0	408.9	408.0	409.7
32.5°	425.5	429.9	428.1	428.1	428.1
35°	450.9	458.8	453.5	455.3	454.4
37.5°	474.5	485.9	478.9	481.5	479.8
40°	500.8	508.7	506.9	506.9	505.2
42.5°	529.7	539.3	536.7	537.6	535.8
45°	561.2	570.0	566.5	565.6	566.5
47.5°	597.1	606.7	602.4	601.5	602.4
50°	634.8	646.1	642.6	640.9	642.6
52.5°	675.9	689.9	688.2	686.4	689.0
55°	724.1	737.2	735.4	737.2	738.1
57.5°	772.2	787.1	783.6	788.0	789.7
60°	832.6	841.4	842.3	843.1	844.0
62.5°	893.9	897.4	900.0	902.7	903.5
65°	964.8	965.7	967.5	964.8	967.5
67.5°	1033.1	1027.0	1026.1	1028.7	1030.5
70°	1139.1	1139.1	1130.3	1142.6	1132.1
71°	1153.1	1169.7	1150.4	1177.6	1148.7
72.5°	1084.8	1115.4	1093.5	1118.0	1089.2
75°	754.7	825.6	824.7	859.8	831.7
77.5°	209.3	196.1	209.3	180.4	172.5
80°	56.9	51.7	56.0	47.3	53.4
82.5°	37.6	32.4	31.5	25.4	27.1
85°	21.9	16.6	16.6	13.1	14.0
87.5°	3.5	0.9	3.5	1.8	2.6
90°	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0
95°	1.0	1.0	1.0	1.0	1.0
97.5°	4.5	4.2	4.0	4.0	4.0
100°	26.5	26.2	26.0	25.5	25.0
102.5°	48.5	48.8	49.0	48.5	48.0
105°	70.0	70.5	71.0	70.0	69.0
107.5°	91.5	91.8	92.0	91.5	91.0



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CATALOG NUMBER: ISS-AF-450-LED-E1-RW-7030-ULG

CANDELA DISTRIBUTION (continued):

	80°	82.5°	85°	87.5°	90°
110°	113.5	113.8	114.0	113.5	113.0
112.5°	136.0	136.5	137.0	136.0	135.0
115°	159.0	159.5	160.0	159.5	159.0
117.5°	181.0	181.5	182.0	181.0	180.0
120°	205.0	205.5	206.0	205.0	204.0
122.5°	231.0	232.0	233.0	232.5	232.0
125°	255.5	256.2	257.0	256.5	256.0
127.5°	279.5	280.2	281.0	279.5	278.0
130°	303.5	304.2	305.0	304.0	303.0
132.5°	327.5	328.2	329.0	328.0	327.0
135°	350.0	350.5	351.0	350.5	350.0
137.5°	372.0	373.0	374.0	373.0	372.0
140°	394.0	395.0	396.0	395.0	394.0
142.5°	414.5	415.2	416.0	415.5	415.0
145°	435.5	436.2	437.0	436.0	435.0
147.5°	454.5	455.2	456.0	454.5	453.0
150°	471.0	472.0	473.0	471.5	470.0
152.5°	487.5	488.2	489.0	487.5	486.0
155°	505.5	506.2	507.0	506.0	505.0
157.5°	520.5	521.8	523.0	521.5	520.0
160°	531.5	532.2	533.0	532.0	531.0
162.5°	539.0	539.5	540.0	538.5	537.0
165°	549.0	549.5	550.0	549.0	548.0
167.5°	561.0	562.0	563.0	562.0	561.0
170°	568.5	569.8	571.0	570.0	569.0
172.5°	569.5	570.2	571.0	569.5	568.0
175°	569.5	570.2	571.0	569.5	568.0
177.5°	575.5	576.2	577.0	575.5	574.0
180°	576.0	576.0	576.0	576.0	576.0

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