

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: P227970

Luminaire Tested: **ISS-AF-350-LED-E1-T4W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P227970
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29757)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: ISS-AF-350-LED-E1-T4W
Description: IMPACT ELITE LED QUATER SPHERE LUMINAIRE
LIGHT SQUARE WITH ACCULED OPTICS-TYPE IV WIDE
Light Source: (16) 4000K CCT, 70 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2440.8 lumens
Efficiency: N/A
Efficacy: 121.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G1

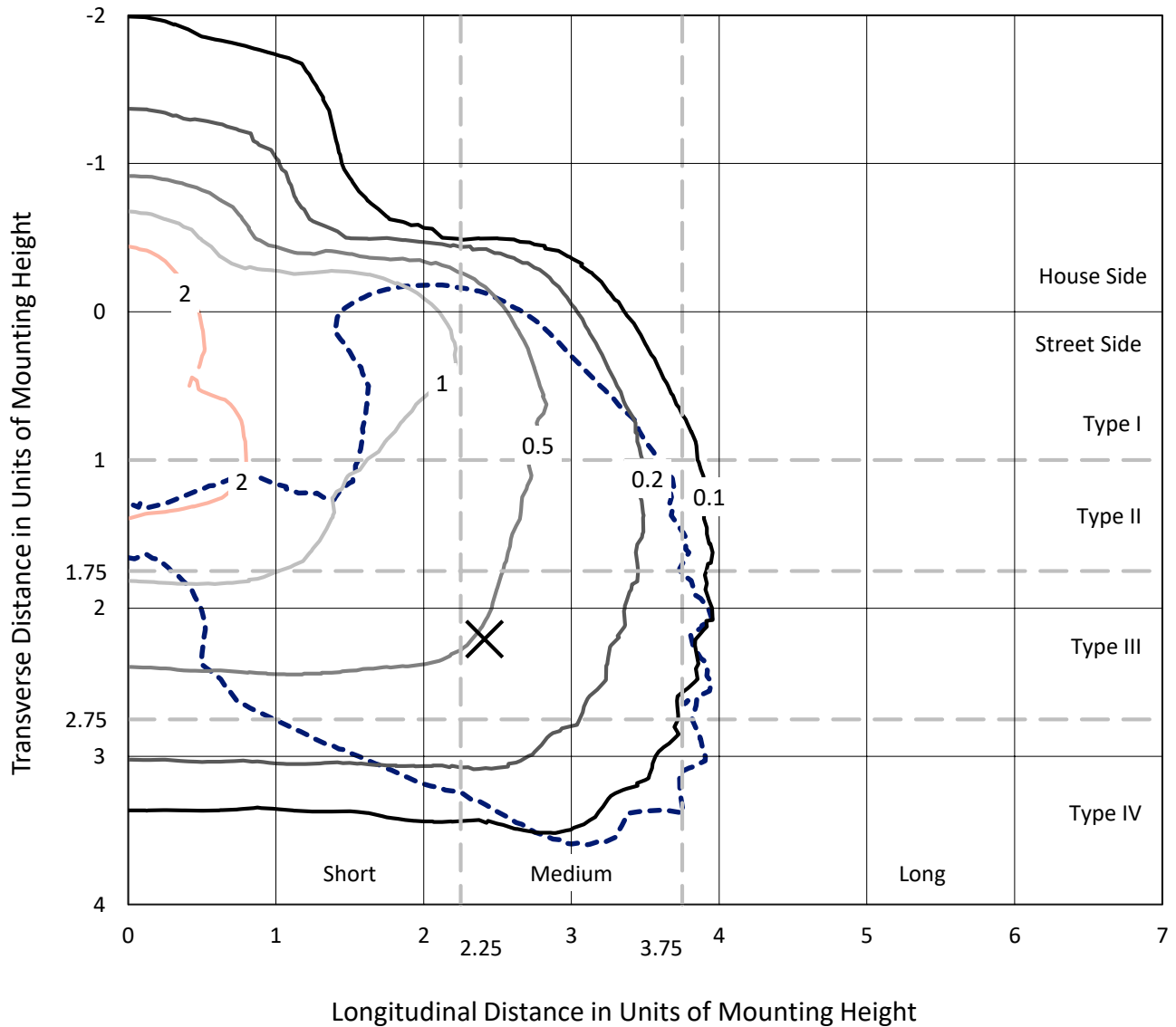
Input Watts (W): 20.09
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

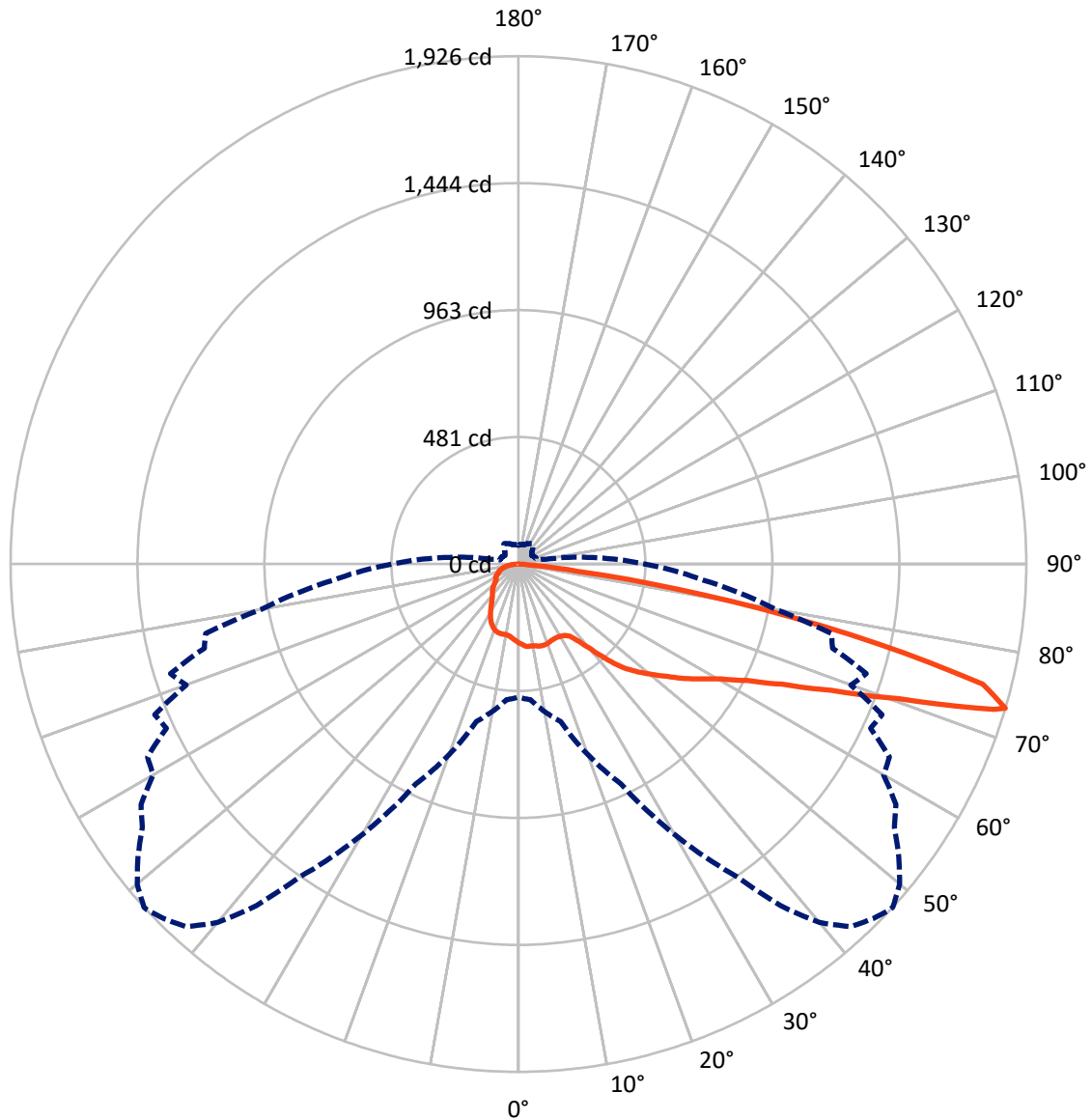
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.5 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 47.5-Deg Lateral - - - Horizontal Cone Through 73-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	487.7	0.0	487.7
	% Fixture	20.0	0.0	20.0
Street Side	Lumens	1953.1	0.0	1953.1
	% Fixture	80.0	0.0	80.0
Total	Lumens	2440.8	0.0	2440.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.5	1.2
10°-20°	84.9	3.5
20°-30°	130.5	5.3
30°-40°	190.4	7.8
40°-50°	314.0	12.9
50°-60°	491.6	20.1
60°-70°	666.9	27.3
70°-80°	493.9	20.2
80°-90°	39.9	1.6
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	2440.8	100.0
0°-180°	2440.8	100.0



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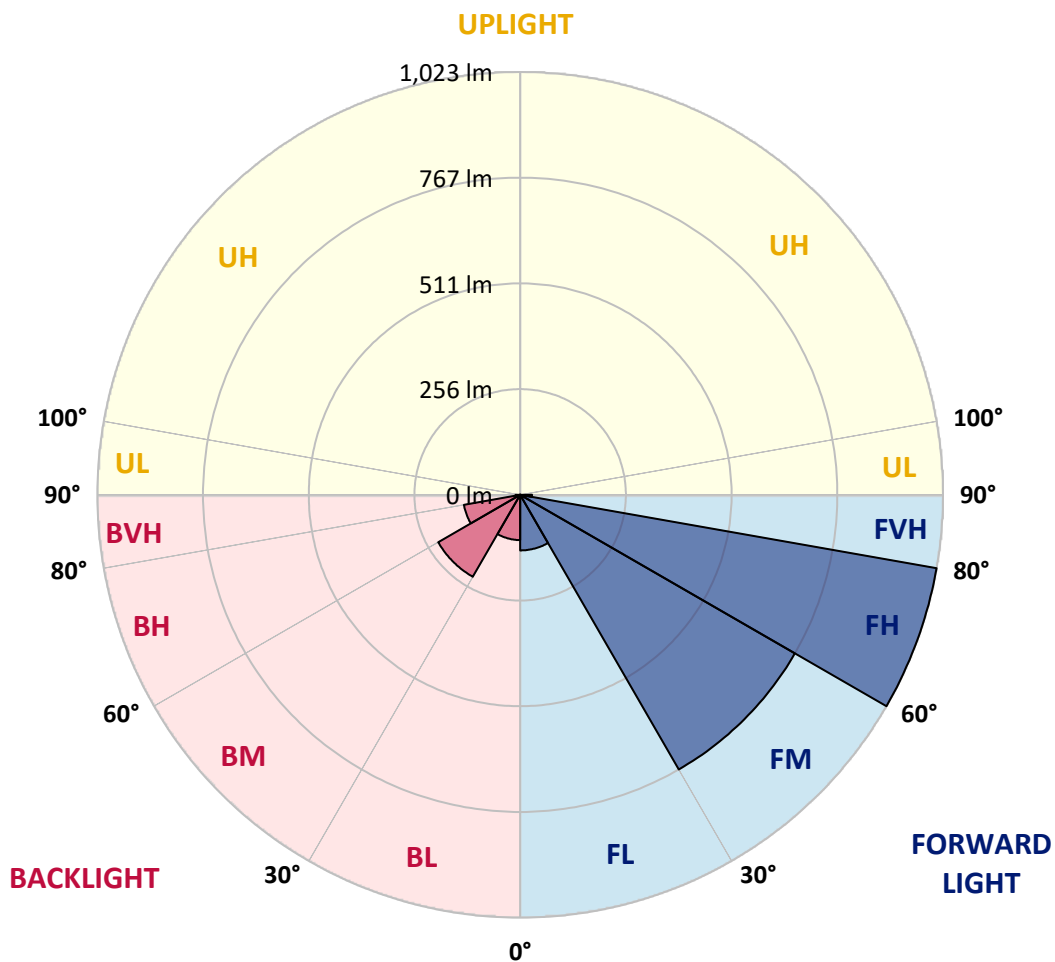
CATALOG NUMBER: ISS-AF-350-LED-E1-T4W

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	134.5	5.5			
FM (30°-60°)	767.1	31.4			
FH (60°-80°)	1022.7	41.9			G1/1800
FVH (80°-90°)	28.8	1.2			G1/100
BL (0°-30°)	109.5	4.5	B0/110		
BM (30°-60°)	229.0	9.4	B1/1000		
BH (60°-80°)	138.1	5.7	B1/500		G1/500
BVH (80°-90°)	11.1	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	37.5°	40°	42.5°	45°	47°	47.5°
0°	299.7	299.7	299.7	299.7	299.7	299.7	299.7	299.7	299.7	299.7	299.7
2.5°	317.4	316.6	314.3	313.4	311.0	309.4	308.6	307.8	310.2	308.6	306.2
5°	337.6	335.9	332.8	328.0	323.0	319.9	319.1	317.4	317.4	315.9	314.3
7.5°	352.1	351.3	346.5	339.2	331.1	325.5	322.3	319.9	320.7	319.1	314.3
10°	365.8	364.2	356.1	347.3	335.2	328.8	324.7	320.7	323.9	321.5	315.1
12.5°	376.2	374.7	363.4	352.1	338.4	331.1	327.1	324.7	328.0	326.3	319.1
15°	381.9	380.3	369.0	355.3	340.8	332.8	331.1	329.5	331.9	328.8	322.3
17.5°	378.7	378.7	368.3	353.7	341.7	333.6	331.1	329.5	332.8	329.5	322.3
20°	366.6	368.3	361.0	345.7	336.8	331.1	328.8	325.5	328.8	325.5	320.7
22.5°	351.3	352.9	348.8	335.2	328.8	324.7	323.9	320.7	323.0	320.7	315.9
25°	337.6	337.6	335.9	323.9	323.0	319.9	320.7	319.1	320.7	317.4	314.3
27.5°	338.4	338.4	331.9	319.9	319.1	319.1	319.1	319.1	319.9	317.4	314.3
30°	386.0	387.6	369.0	335.2	323.0	321.5	322.3	321.5	322.3	321.5	317.4
32.5°	457.7	457.7	440.0	387.6	344.8	334.4	330.3	329.5	327.1	326.3	323.0
35°	528.6	527.7	510.0	452.0	398.0	377.9	365.0	352.9	347.3	341.7	335.9
37.5°	588.2	585.7	583.3	517.3	460.8	437.5	422.2	404.5	393.2	383.5	370.6
40°	643.7	647.8	656.6	577.7	523.8	502.0	486.6	464.1	452.9	440.7	425.4
42.5°	720.3	726.0	726.7	642.9	580.9	566.4	554.3	537.5	525.3	510.9	497.2
45°	794.4	795.2	797.7	713.1	651.0	632.5	623.6	607.5	592.2	573.7	562.4
47.5°	845.2	842.8	853.2	793.6	733.3	712.3	699.4	675.1	651.8	628.5	611.5
50°	907.3	904.8	904.8	885.5	828.3	804.1	781.5	736.4	711.5	682.4	658.3
52.5°	962.0	953.2	958.8	970.1	928.2	897.5	858.1	807.3	774.3	738.9	708.2
55°	1037.0	991.0	1003.9	1043.4	1027.2	979.8	927.4	873.4	835.5	795.2	767.0
57.5°	1011.2	979.8	1017.6	1086.9	1086.1	1041.8	997.5	931.4	893.5	855.7	821.0
60°	918.5	934.7	1016.8	1116.8	1120.7	1086.1	1049.9	988.6	958.8	919.3	884.6
62.5°	846.8	870.1	983.0	1114.3	1160.2	1128.0	1098.2	1061.9	1041.0	1007.9	972.5
65°	842.8	856.5	966.1	1111.8	1215.8	1198.9	1185.2	1168.3	1164.2	1140.1	1099.0
67.5°	881.5	894.4	995.0	1173.9	1298.0	1290.8	1310.9	1307.6	1325.4	1313.3	1279.5
70°	805.7	812.9	937.0	1195.7	1485.7	1518.0	1563.1	1560.7	1598.6	1569.5	1530.0
72.5°	565.6	580.1	689.7	987.8	1489.7	1662.2	1766.9	1855.5	1896.7	1903.9	1885.4
73°	505.1	516.5	618.0	920.1	1449.5	1633.1	1774.2	1865.2	1901.5	1924.1	1925.7
75°	175.6	181.3	270.0	557.5	1158.6	1425.3	1606.5	1688.8	1679.9	1746.0	1818.5
77.5°	56.4	57.2	70.1	144.2	559.1	884.6	1086.9	1162.7	1119.1	1190.8	1287.5
80°	34.7	36.2	45.9	65.3	146.7	268.3	454.4	568.9	545.4	612.3	715.5
82.5°	21.0	21.8	28.2	40.3	58.8	65.3	85.4	116.0	142.6	171.7	224.8
85°	9.7	10.4	13.7	18.5	24.1	25.0	24.1	22.6	25.8	29.8	34.7
87.5°	0.0	0.0	0.8	1.6	0.8	0.0	0.0	0.0	0.0	0.8	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



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CANDELA DISTRIBUTION (continued):

	50°	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°
0°	299.7	299.7	299.7	299.7	299.7	299.7	299.7	299.7	299.7	299.7	299.7
2.5°	308.6	306.2	306.2	303.0	304.5	301.4	303.0	299.7	301.4	297.3	299.7
5°	313.4	309.4	309.4	304.5	305.4	299.7	302.2	295.7	298.9	291.6	296.6
7.5°	315.9	308.6	311.8	303.0	307.0	297.3	302.2	291.6	298.1	286.8	294.9
10°	319.1	308.6	314.3	304.5	309.4	298.1	304.5	291.6	299.7	286.0	293.3
12.5°	323.9	312.6	317.4	306.2	312.6	299.7	306.2	293.3	301.4	286.0	294.9
15°	327.1	315.9	320.7	309.4	314.3	299.7	307.8	292.5	301.4	285.2	294.9
17.5°	326.3	315.9	320.7	307.8	313.4	298.9	307.0	291.6	299.7	282.8	293.3
20°	323.0	314.3	317.4	306.2	311.0	296.6	303.7	288.5	297.3	280.4	290.8
22.5°	319.1	310.2	314.3	303.7	308.6	294.1	300.5	286.8	295.7	278.8	288.5
25°	316.6	309.4	311.8	301.4	307.8	294.9	301.4	286.0	295.7	278.8	290.0
27.5°	315.9	309.4	314.3	304.5	310.2	298.9	305.4	291.6	299.7	282.0	293.3
30°	320.7	315.1	319.1	311.0	315.9	304.5	311.0	298.1	306.2	289.3	302.2
32.5°	326.3	320.7	324.7	317.4	324.7	313.4	321.5	308.6	318.2	301.4	313.4
35°	338.4	331.9	337.6	329.5	337.6	328.8	337.6	323.9	335.9	319.1	331.9
37.5°	369.8	352.1	357.7	348.8	356.9	345.7	361.0	347.3	361.0	344.8	362.5
40°	419.8	388.3	394.0	375.4	387.6	370.6	389.1	378.7	397.2	377.1	399.7
42.5°	485.1	455.2	449.6	421.4	431.9	411.7	430.3	411.7	436.7	417.4	445.6
45°	544.6	513.2	504.4	477.0	484.3	457.7	481.0	455.2	488.3	465.7	501.1
47.5°	593.8	556.8	549.5	518.1	531.0	506.0	535.0	507.6	547.9	525.3	566.4
50°	638.9	593.0	591.4	557.5	579.3	554.3	595.5	576.8	616.3	593.8	642.1
52.5°	690.5	632.5	640.6	609.9	644.6	623.6	671.2	644.6	696.1	672.0	725.2
55°	745.3	684.0	705.0	686.5	727.5	713.8	754.1	730.0	780.7	756.6	812.9
57.5°	805.7	753.3	790.4	781.5	817.8	800.9	846.0	824.3	875.0	854.9	911.2
60°	884.6	850.1	886.3	885.5	916.9	916.1	945.1	932.2	980.6	971.7	1023.3
62.5°	987.0	959.6	998.3	987.8	1025.7	1019.3	1054.7	1054.7	1089.3	1101.4	1153.0
65°	1124.7	1088.5	1134.5	1118.3	1156.2	1157.8	1180.4	1184.4	1226.3	1240.0	1284.3
67.5°	1311.7	1269.8	1306.1	1275.4	1319.0	1316.5	1335.9	1344.0	1349.6	1382.6	1387.4
70°	1580.8	1518.0	1551.0	1509.1	1517.1	1522.8	1486.6	1513.1	1448.7	1501.1	1430.2
72.5°	1871.7	1800.0	1742.8	1700.9	1617.9	1605.8	1500.3	1522.8	1385.8	1430.9	1287.5
73°	1886.9	1817.7	1740.3	1696.9	1598.6	1585.7	1472.8	1492.2	1340.7	1383.4	1232.8
75°	1715.4	1733.9	1547.8	1565.5	1394.7	1414.8	1238.4	1261.0	1074.8	1107.0	912.9
77.5°	1156.2	1218.2	1009.6	1087.7	875.9	954.0	714.6	721.9	526.9	492.2	334.4
80°	572.9	626.0	444.0	485.1	325.5	319.9	195.0	161.9	137.8	141.0	145.1
82.5°	165.2	186.1	115.2	114.4	81.4	77.3	77.3	82.1	83.8	93.5	91.0
85°	31.4	37.8	33.0	44.3	39.5	43.5	40.3	46.7	43.5	54.0	46.7
87.5°	0.8	0.0	0.8	2.5	2.5	5.6	4.0	6.4	6.4	11.3	10.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	77.5°	80°	85°	90°	95°	100°	102.5°	105°	107.5°	110°	112.5°
0°	299.7	299.7	299.7	299.7	299.7	299.7	299.7	299.7	299.7	299.7	299.7
2.5°	296.6	300.5	298.9	297.3	295.7	294.9	291.6	293.3	289.3	292.5	289.3
5°	290.0	294.9	292.5	289.3	287.7	286.0	280.4	284.4	277.9	283.6	278.8
7.5°	282.8	290.8	288.5	285.2	282.0	280.4	269.1	277.9	268.3	276.4	268.3
10°	280.4	289.3	286.0	282.0	278.8	277.1	263.5	273.9	263.5	272.3	261.9
12.5°	278.8	289.3	284.4	280.4	277.1	274.8	259.4	272.3	258.6	271.5	259.4
15°	277.1	289.3	282.8	277.9	274.8	272.3	256.2	270.7	255.4	270.0	256.2
17.5°	275.6	286.8	281.2	275.6	272.3	270.7	253.0	268.3	252.2	268.3	254.6
20°	273.1	284.4	277.9	272.3	269.1	266.7	249.0	265.0	248.2	264.2	249.0
22.5°	270.0	282.0	276.4	270.7	267.5	263.5	244.2	261.1	243.4	259.4	244.9
25°	270.7	283.6	276.4	270.7	265.9	261.9	240.9	259.4	239.3	255.4	239.3
27.5°	274.8	286.0	278.8	273.9	267.5	262.7	240.9	257.8	237.7	251.3	234.5
30°	282.8	294.1	287.7	280.4	274.8	268.3	244.9	258.6	237.7	246.5	229.7
32.5°	296.6	307.0	300.5	294.9	288.5	278.8	253.0	262.7	239.3	243.4	225.6
35°	314.3	327.1	323.9	319.9	311.8	294.9	266.7	268.3	242.5	240.1	219.9
37.5°	343.2	361.0	360.2	359.4	350.5	319.9	282.0	279.6	245.7	237.7	212.7
40°	381.2	402.0	407.6	413.4	394.8	349.6	299.7	290.8	247.3	232.8	201.4
42.5°	425.4	453.6	470.6	481.0	447.1	382.7	319.9	303.7	247.3	225.6	188.5
45°	480.2	513.2	545.4	556.8	505.1	418.2	340.8	314.3	244.2	214.3	171.7
47.5°	547.1	585.7	630.0	635.7	568.0	456.0	355.3	321.5	233.6	199.0	156.3
50°	621.2	668.0	733.3	729.2	634.9	495.5	365.0	326.3	215.1	181.3	137.8
52.5°	704.2	763.0	855.7	837.2	716.3	544.6	373.9	332.8	192.5	160.3	119.3
55°	808.1	878.2	994.2	954.8	806.5	598.6	386.8	333.6	162.8	135.3	105.6
57.5°	920.1	995.0	1143.4	1071.6	891.1	640.6	381.2	307.8	133.0	114.4	95.0
60°	1054.7	1145.7	1292.4	1180.4	962.0	655.0	341.7	253.8	113.6	103.1	90.2
62.5°	1205.3	1295.6	1414.8	1256.1	1002.3	630.9	253.8	175.6	97.5	91.9	83.0
65°	1365.6	1451.1	1473.7	1262.5	975.7	524.6	157.1	115.2	84.6	82.1	76.5
67.5°	1513.1	1521.2	1418.0	1157.8	846.8	365.8	107.2	91.9	78.2	77.3	74.2
70°	1551.0	1411.6	1178.7	901.6	611.5	217.6	87.1	79.8	75.0	75.0	72.5
72.5°	1295.6	1074.8	788.0	546.3	333.6	116.0	74.2	72.5	70.9	70.9	69.3
73°	1215.1	990.2	705.8	477.0	282.0	103.9	72.5	70.9	70.1	69.3	68.4
75°	807.3	622.1	400.5	241.7	131.3	75.0	64.4	64.4	63.6	64.4	63.6
77.5°	311.0	234.5	154.7	103.9	75.0	58.8	54.8	55.5	54.8	56.4	55.5
80°	137.0	135.3	102.3	73.3	54.8	44.3	44.3	44.3	45.1	45.9	45.9
82.5°	93.5	79.0	60.5	45.1	33.0	32.2	33.0	33.0	33.9	34.7	33.9
85°	51.6	43.5	32.2	20.2	17.7	21.8	21.8	21.8	21.0	21.0	20.2
87.5°	16.2	12.1	8.9	2.5	4.0	4.0	5.6	4.8	4.8	5.6	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



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CATALOG NUMBER: ISS-AF-350-LED-E1-T4W

CANDELA DISTRIBUTION (continued):

	115°	117.5°	120°	122.5°	125°	127.5°	130°	135°	145°	155°	165°
0°	299.7	299.7	299.7	299.7	299.7	299.7	299.7	299.7	299.7	299.7	299.7
2.5°	292.5	290.0	292.5	288.5	291.6	288.5	290.8	290.8	290.0	290.0	290.0
5°	282.8	278.8	282.8	280.4	282.8	279.6	282.0	282.8	283.6	286.0	285.2
7.5°	275.6	267.5	276.4	268.3	275.6	268.3	274.8	275.6	277.9	281.2	283.6
10°	272.3	261.9	272.3	262.7	271.5	263.5	271.5	272.3	274.8	278.8	282.8
12.5°	270.7	259.4	270.7	261.1	270.7	262.7	270.7	273.1	274.8	277.9	282.8
15°	269.1	257.8	270.7	260.2	270.7	262.7	271.5	273.1	275.6	278.8	282.8
17.5°	268.3	255.4	269.1	259.4	269.1	261.1	270.7	270.7	273.9	277.9	280.4
20°	265.0	253.0	265.0	255.4	265.0	257.8	265.9	265.9	269.1	270.7	274.8
22.5°	260.2	247.3	258.6	249.8	258.6	251.3	257.8	257.8	260.2	262.7	265.0
25°	253.0	240.9	250.6	242.5	249.0	242.5	247.3	246.5	248.2	249.8	251.3
27.5°	244.9	232.8	240.9	232.0	236.1	229.7	232.8	231.3	232.0	232.8	233.6
30°	236.1	224.0	228.0	219.9	220.8	214.3	215.9	213.5	212.7	211.9	210.3
32.5°	226.4	213.5	213.5	205.4	203.9	198.2	198.2	195.0	192.5	189.3	186.1
35°	214.3	203.1	197.4	191.0	187.7	182.1	181.3	177.3	171.7	166.0	162.8
37.5°	202.2	189.3	181.3	174.8	171.7	167.6	166.7	163.6	157.1	150.7	145.9
40°	186.1	173.2	164.4	161.9	159.6	156.3	157.1	153.1	146.7	139.4	135.3
42.5°	170.0	158.8	151.5	150.7	149.0	148.2	149.0	145.9	138.6	132.2	127.3
45°	156.3	145.1	137.8	137.0	136.2	139.4	140.1	139.4	131.3	124.9	118.5
47.5°	142.6	128.9	124.1	122.4	123.3	128.1	129.7	132.2	124.9	117.6	108.7
50°	126.5	113.6	112.0	110.4	111.2	115.2	119.3	124.1	117.6	107.2	95.0
52.5°	112.0	100.8	101.5	99.9	101.5	104.8	107.9	116.0	107.9	97.5	91.9
55°	100.8	91.9	93.5	91.9	93.5	97.5	99.9	106.4	106.4	103.9	99.1
57.5°	92.7	86.2	87.9	86.2	88.6	91.9	94.3	107.9	116.0	109.6	99.9
60°	87.9	82.1	83.0	81.4	83.0	87.9	92.7	108.7	121.6	108.7	101.5
62.5°	80.6	75.7	75.0	75.0	76.5	84.6	87.1	101.5	120.1	107.9	102.3
65°	75.7	71.7	70.9	70.1	71.7	77.3	79.8	94.3	116.0	102.3	92.7
67.5°	73.3	70.1	68.4	66.9	68.4	73.3	75.7	88.6	109.6	97.5	87.1
70°	70.9	67.7	66.9	65.3	66.1	69.3	72.5	81.4	103.9	91.9	81.4
72.5°	67.7	64.4	63.6	61.3	62.0	65.3	66.9	76.5	96.7	86.2	75.7
73°	66.9	63.6	62.8	60.5	61.3	63.6	65.3	75.0	95.0	85.4	75.0
75°	62.8	59.6	58.8	57.2	58.0	58.0	59.6	68.4	90.2	80.6	70.1
77.5°	55.5	53.2	52.4	50.7	49.9	49.1	51.6	60.5	82.1	72.5	56.4
80°	45.9	43.5	42.7	39.5	39.5	39.5	42.7	51.6	61.3	52.4	43.5
82.5°	33.9	32.2	32.2	29.8	29.1	28.2	30.6	35.5	48.4	41.1	33.9
85°	20.2	19.3	20.2	17.7	18.5	17.7	20.2	25.0	26.6	21.0	16.2
87.5°	4.8	5.6	5.6	5.6	4.8	4.8	4.0	3.3	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



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CANDELA DISTRIBUTION (continued):

	175°	180°
0°	299.7	299.7
2.5°	289.3	288.5
5°	285.2	285.2
7.5°	283.6	283.6
10°	284.4	284.4
12.5°	284.4	286.0
15°	286.8	286.0
17.5°	284.4	284.4
20°	277.9	279.6
22.5°	269.1	269.1
25°	254.6	255.4
27.5°	235.3	236.9
30°	211.1	212.7
32.5°	183.7	185.4
35°	161.9	162.8
37.5°	147.4	147.4
40°	135.3	135.3
42.5°	124.1	123.3
45°	112.8	111.2
47.5°	101.5	100.8
50°	91.9	91.9
52.5°	93.5	93.5
55°	100.8	100.8
57.5°	101.5	100.8
60°	110.4	109.6
62.5°	115.2	117.6
65°	100.8	97.5
67.5°	95.9	91.0
70°	86.2	79.0
72.5°	76.5	72.5
73°	74.2	70.9
75°	66.1	64.4
77.5°	49.9	49.1
80°	41.9	41.1
82.5°	28.2	26.6
85°	12.1	11.3
87.5°	0.0	0.0
90°	0.0	0.0

(END OF REPORT)