

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: P226504

Luminaire Tested: **ISW-AF-450-LED-E1-T4FT-7030-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P226504
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35943)-DOWNLIGHT AND
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: ISW-AF-450-LED-E1-T4FT-7030-ULG
Description: IMPACT ELITE LED WEDGE LUMINAIRE WITH UPLIGHT
LIGHT SQUARE WITH ACCULED OPTICS-TYPE IV FORWARD THROW, 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: 4549.5 lumens
Efficiency: N/A
Efficacy: 108.3 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): 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

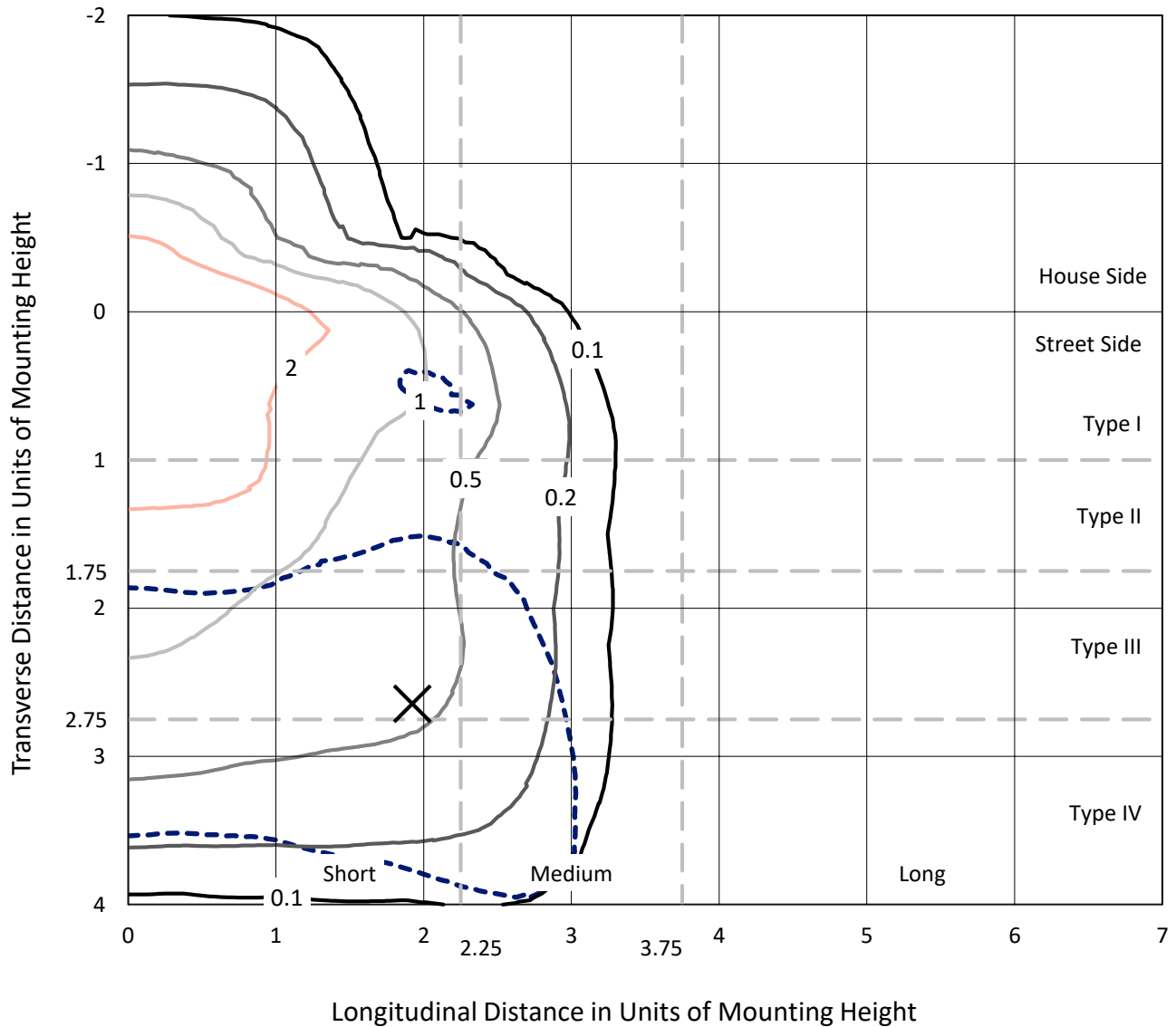


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Iso-Footcandle Lines of Horizontal Illumination

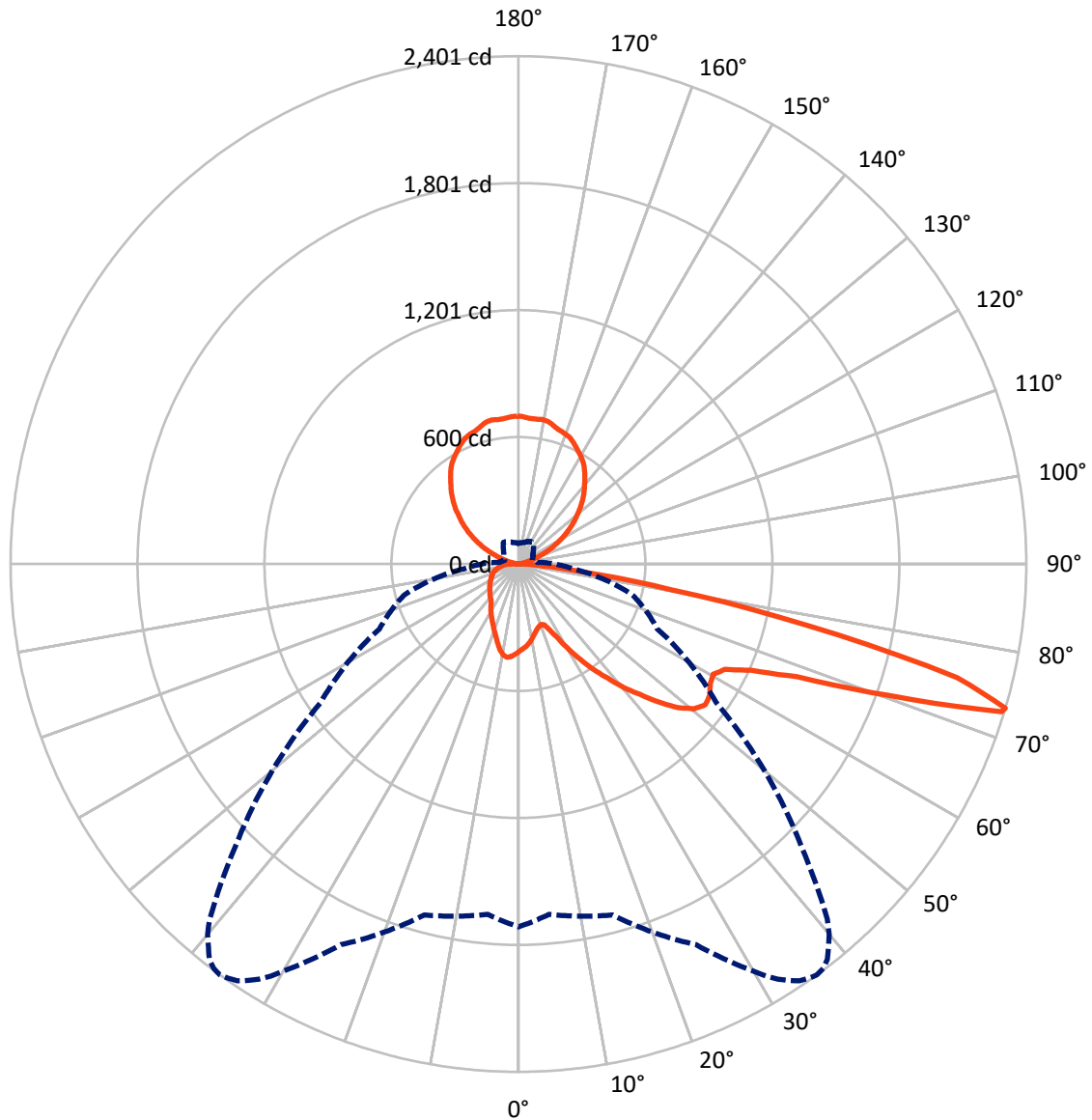
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.3 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 36-Deg Lateral - - - Horizontal Cone Through 73-Deg Vertical

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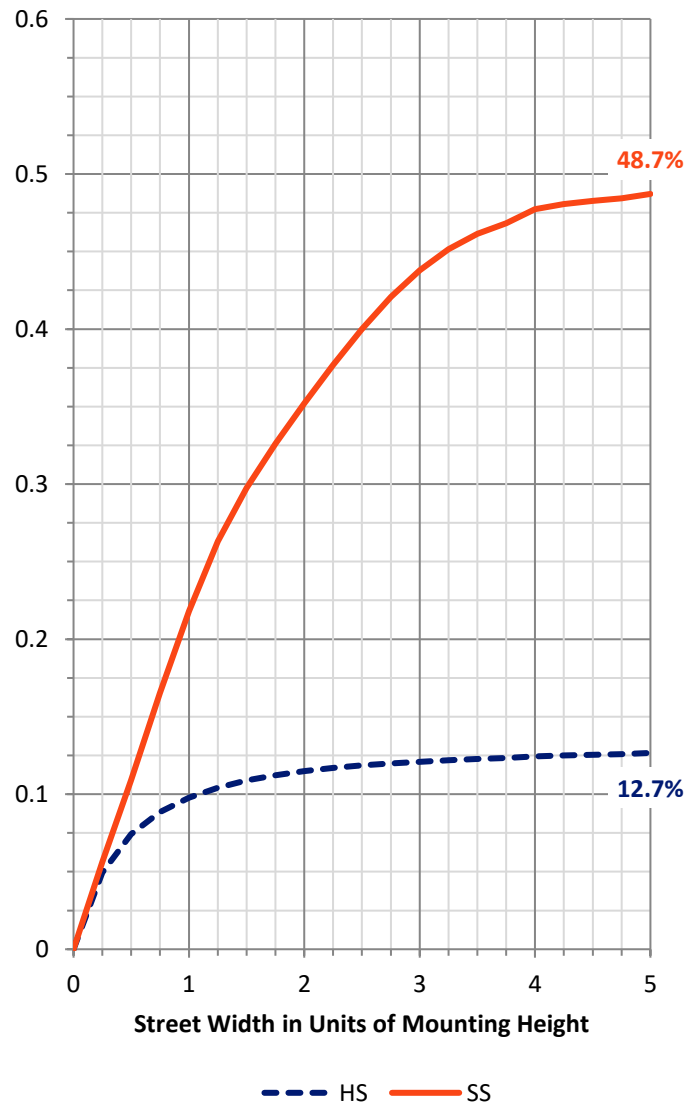
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	593.7	868.2	1461.9
	% Fixture	13.1	19.1	32.1
Street Side	Lumens	2219.8	867.8	3087.6
	% Fixture	48.8	19.1	67.9
Total	Lumens	2813.5	1736.0	4549.5
	% Fixture	61.8	38.2	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.9	0.9
10°-20°	103.1	2.3
20°-30°	168.9	3.7
30°-40°	279.8	6.2
40°-50°	411.3	9.0
50°-60°	518.6	11.4
60°-70°	679.1	14.9
70°-80°	549.7	12.1
80°-90°	64.3	1.4
90°-100°	10.1	0.2
100°-110°	57.4	1.3
110°-120°	166.1	3.7
120°-130°	273.2	6.0
130°-140°	336.8	7.4
140°-150°	344.6	7.6
150°-160°	290.3	6.4
160°-170°	191.2	4.2
170°-180°	66.3	1.5
0°-90°	2813.5	61.8
0°-180°	4549.5	100.0



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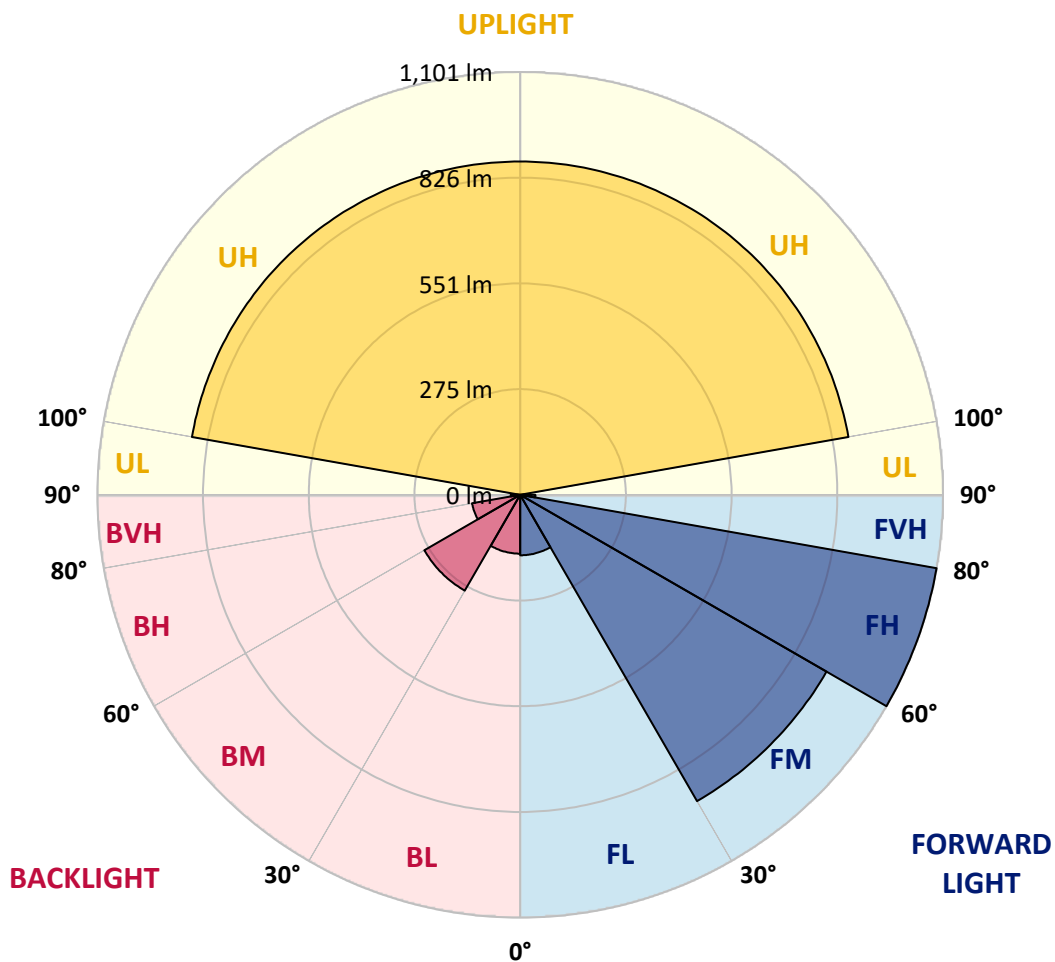
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	157.5	3.5			
FM	(30°-60°)	921.3	20.3			
FH	(60°-80°)	1101.5	24.2			G1/1800
FVH	(80°-90°)	39.5	0.9			G1/100
BL	(0°-30°)	153.4	3.4	B1/500		
BM	(30°-60°)	288.3	6.3	B1/1000		
BH	(60°-80°)	127.3	2.8	B1/500		G1/500
BVH	(80°-90°)	24.7	0.5			G1/100
UL	(90°-100°)	10.1	0.2		U2/50	
UH	(100°-180°)	868.2	19.1		U4/1000	

BUG Rating: B1-U5-G1

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	30°	31°	32°	33°	34°	35°	36°
0°	413.2	413.2	413.2	413.2	413.2	413.2	413.2	413.2	413.2	413.2	413.2
2.5°	398.3	399.1	399.9	399.9	399.9	401.1	400.7	400.7	401.1	401.5	401.5
5°	383.3	383.8	386.2	387.0	389.4	389.0	389.0	389.0	390.6	389.4	390.2
7.5°	366.4	367.2	369.6	372.5	374.5	374.9	374.5	373.7	375.7	376.5	375.7
10°	346.3	346.7	349.9	352.3	355.5	355.1	356.3	356.3	357.1	356.7	358.4
12.5°	336.2	335.4	333.8	335.0	335.8	335.8	335.8	337.0	336.6	337.4	338.6
15°	335.0	333.0	324.9	322.1	321.3	321.3	320.9	320.5	321.7	322.9	322.9
17.5°	340.6	336.6	320.9	312.8	311.2	310.4	310.8	310.0	310.0	311.6	311.2
20°	368.0	360.8	329.3	311.6	306.8	306.8	306.4	305.1	305.1	305.6	305.6
22.5°	437.8	428.5	373.7	337.0	320.1	319.7	318.4	317.2	314.0	313.2	311.6
25°	534.9	524.0	430.1	390.6	366.8	366.0	360.0	359.2	351.5	351.9	346.7
27.5°	610.3	603.0	505.5	453.1	430.5	425.7	422.9	415.6	409.1	403.9	397.5
30°	636.1	634.9	581.7	539.3	505.5	499.8	492.2	489.0	479.7	472.4	468.0
32.5°	676.8	678.0	655.8	609.1	579.7	574.0	567.6	559.9	553.5	548.6	538.1
35°	734.9	735.3	719.9	684.9	651.0	643.3	639.7	630.9	624.8	618.8	613.5
37.5°	775.2	777.2	766.3	739.3	719.1	708.2	707.8	701.4	694.5	689.3	684.5
40°	852.6	841.7	805.8	788.5	771.9	770.7	767.1	763.5	765.1	762.3	767.5
42.5°	930.8	917.1	867.1	842.5	832.4	834.4	833.2	833.6	838.4	837.2	842.9
45°	997.7	982.0	934.4	905.4	913.4	915.8	922.7	926.7	924.7	932.0	932.0
47.5°	1064.6	1027.9	971.5	984.8	990.4	1009.0	1013.8	1012.6	1019.4	1022.7	1013.8
50°	1017.4	1007.8	1003.3	1044.0	1069.4	1075.5	1082.3	1086.0	1089.2	1084.7	1075.9
52.5°	917.9	917.1	979.5	1079.1	1100.5	1108.5	1115.0	1117.8	1116.6	1114.2	1106.9
55°	884.4	878.0	932.0	1042.8	1075.5	1083.1	1092.4	1098.0	1103.7	1102.9	1097.2
57.5°	930.0	924.7	925.1	1011.0	1042.8	1049.7	1055.7	1062.2	1063.8	1069.0	1069.4
60°	1062.2	1055.3	1000.1	1009.8	1042.0	1049.7	1050.5	1054.1	1054.5	1057.3	1057.7
62.5°	1252.8	1240.3	1156.1	1083.5	1094.8	1098.4	1101.3	1100.5	1098.9	1096.8	1096.8
65°	1461.6	1450.0	1341.5	1256.9	1224.2	1233.1	1219.0	1216.2	1212.9	1212.9	1209.3
67.5°	1710.0	1687.8	1603.9	1508.8	1461.6	1466.1	1472.5	1447.9	1439.1	1439.9	1420.9
70°	1963.1	1939.7	1903.0	1901.8	1925.6	1915.1	1885.3	1924.8	1878.0	1866.8	1862.7
72.5°	1823.2	1795.4	1803.1	2030.8	2244.5	2279.1	2312.2	2342.8	2370.2	2386.8	2389.2
73°	1716.0	1663.2	1718.0	1985.7	2222.7	2273.9	2315.0	2347.7	2377.1	2392.0	2401.3
75°	857.0	859.8	1129.9	1638.2	1942.5	1986.5	2050.6	2086.4	2139.7	2167.1	2142.9
77.5°	198.7	206.0	342.2	777.6	1164.6	1227.4	1278.6	1331.0	1392.7	1415.7	1395.5
80°	70.1	73.4	120.5	295.5	486.1	520.8	564.7	622.4	679.6	693.7	729.2
82.5°	37.1	40.7	63.7	128.2	207.6	226.9	238.2	262.0	282.2	294.3	300.7
85°	21.4	21.8	36.3	70.9	95.1	102.8	110.0	115.7	122.1	117.7	117.7
87.5°	8.5	9.3	18.5	33.5	46.0	51.2	51.2	51.2	50.8	44.7	40.7
90°	6.6	7.4	10.6	14.9	14.0	14.0	13.6	12.8	12.4	12.8	10.7
92.5°	4.0	4.0	5.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
95°	5.0	5.0	6.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
97.5°	7.0	7.0	8.0	8.0	8.5	8.6	8.7	8.8	8.9	9.0	9.0
100°	8.0	8.0	9.0	10.0	11.0	11.2	11.4	11.6	11.8	12.0	12.9
102.5°	11.0	11.0	13.0	18.0	22.5	23.4	24.3	25.2	26.1	27.0	28.3
105°	21.0	22.0	27.0	36.0	42.0	43.2	44.4	45.6	46.8	48.0	49.5
107.5°	41.0	42.0	49.0	58.0	65.5	67.0	68.5	70.0	71.5	73.0	74.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	30°	31°	32°	33°	34°	35°	36°
110°	66.0	68.0	74.0	87.0	94.5	96.0	97.5	99.0	100.5	102.0	103.2
112.5°	99.0	99.0	106.0	121.0	127.5	128.8	130.1	131.4	132.7	134.0	134.9
115°	140.0	139.0	147.0	159.0	163.5	164.4	165.3	166.2	167.1	168.0	168.6
117.5°	184.0	184.0	189.0	197.0	199.5	200.0	200.5	201.0	201.5	202.0	202.3
120°	225.0	223.0	226.0	233.0	235.0	235.4	235.8	236.2	236.6	237.0	237.6
122.5°	263.0	260.0	261.0	267.0	269.0	269.4	269.8	270.2	270.6	271.0	271.6
125°	298.0	294.0	296.0	299.0	302.0	302.6	303.2	303.8	304.4	305.0	305.5
127.5°	330.0	329.0	329.0	333.0	336.0	336.6	337.2	337.8	338.4	339.0	339.1
130°	363.0	361.0	362.0	366.0	368.0	368.4	368.8	369.2	369.6	370.0	370.2
132.5°	396.0	394.0	393.0	401.0	402.5	402.8	403.1	403.4	403.7	404.0	404.1
135°	429.0	426.0	426.0	432.0	433.5	433.8	434.1	434.4	434.7	435.0	435.2
137.5°	460.0	457.0	459.0	460.0	462.0	462.4	462.8	463.2	463.6	464.0	464.4
140°	488.0	485.0	487.0	489.0	490.0	490.2	490.4	490.6	490.8	491.0	491.6
142.5°	518.0	515.0	517.0	518.0	519.5	519.8	520.1	520.4	520.7	521.0	521.4
145°	550.0	546.0	544.0	547.0	548.5	548.8	549.1	549.4	549.7	550.0	550.1
147.5°	575.0	572.0	571.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.1
150°	595.0	592.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0
152.5°	611.0	608.0	608.0	609.0	609.5	609.6	609.7	609.8	609.8	609.9	610.0
155°	629.0	625.0	625.0	627.0	628.5	628.8	629.1	629.4	629.7	630.0	629.8
157.5°	646.0	643.0	643.0	644.0	645.0	645.2	645.4	645.6	645.8	646.0	645.9
160°	663.0	660.0	659.0	656.0	655.5	655.4	655.3	655.2	655.1	655.0	655.0
162.5°	673.0	669.0	669.0	665.0	663.0	662.6	662.2	661.8	661.4	661.0	661.2
165°	681.0	678.0	676.0	676.0	674.5	674.2	673.9	673.6	673.3	673.0	673.0
167.5°	690.0	687.0	684.0	686.0	687.0	687.2	687.4	687.6	687.8	688.0	687.7
170°	698.0	695.0	692.0	692.0	692.5	692.6	692.7	692.8	692.9	693.0	692.8
172.5°	699.0	697.0	695.0	693.0	691.5	691.2	690.9	690.6	690.3	690.0	690.0
175°	700.0	698.0	697.0	695.0	693.0	692.6	692.2	691.8	691.4	691.0	690.9
177.5°	707.0	705.0	700.0	699.0	698.0	697.8	697.6	697.4	697.2	697.0	696.8
180°	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0



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CANDELA DISTRIBUTION (continued):

	37°	38°	39°	40°	41°	45°	55°	65°	75°	85°	90°
0°	413.2	413.2	413.2	413.2	413.2	413.2	413.2	413.2	413.2	413.2	413.2
2.5°	402.3	402.7	401.9	403.5	402.3	402.3	404.3	407.9	410.8	411.6	414.0
5°	391.0	391.4	391.4	391.8	391.4	392.2	395.8	399.1	404.7	407.5	411.2
7.5°	376.5	377.7	377.3	378.1	378.1	378.9	384.6	389.8	395.4	400.7	405.1
10°	359.2	360.0	361.6	360.8	360.8	363.2	369.2	376.9	383.8	391.4	396.7
12.5°	338.6	340.6	340.2	341.8	342.6	344.2	354.3	362.8	371.3	380.1	387.0
15°	322.5	323.7	324.5	324.9	324.9	328.5	338.6	349.1	360.4	370.9	378.1
17.5°	312.0	312.0	312.8	313.2	314.0	316.4	326.9	338.6	351.5	364.4	372.5
20°	306.0	306.0	306.4	306.8	306.8	309.6	319.3	332.6	346.7	363.2	372.9
22.5°	310.8	309.6	309.2	309.2	307.6	307.6	316.8	330.9	348.7	370.0	382.5
25°	343.8	340.2	334.6	333.4	331.3	321.7	320.5	336.6	358.4	385.0	403.9
27.5°	393.4	389.8	386.2	381.7	378.5	360.8	336.6	351.1	376.9	414.8	438.2
30°	458.3	451.1	445.8	441.0	426.9	407.5	370.0	373.7	405.5	456.3	485.7
32.5°	530.9	523.2	515.2	503.9	500.2	468.8	420.8	411.2	441.8	504.7	535.3
35°	601.0	597.4	591.8	587.3	578.9	552.7	486.9	456.3	483.7	561.5	585.3
37.5°	682.4	675.6	676.0	672.4	667.5	645.4	555.5	510.7	528.9	615.9	630.9
40°	762.7	761.1	763.5	757.4	749.4	719.5	605.9	550.6	576.0	668.3	664.7
42.5°	838.4	839.7	836.8	830.0	821.1	771.1	638.1	584.5	618.4	714.3	691.7
45°	925.1	920.7	909.0	896.9	886.0	815.5	655.4	622.4	659.1	763.9	719.1
47.5°	1006.9	989.6	979.5	961.0	939.6	855.8	678.8	662.3	704.2	810.6	745.3
50°	1067.0	1050.9	1034.0	1011.4	988.8	890.9	709.9	707.4	755.4	863.0	781.2
52.5°	1094.4	1079.5	1063.0	1040.0	1017.4	916.2	751.4	751.4	815.9	932.4	830.8
55°	1090.0	1079.1	1064.6	1043.6	1026.3	930.0	794.1	799.8	891.7	1007.3	888.0
57.5°	1066.6	1060.6	1052.1	1037.6	1023.5	940.4	844.5	848.1	993.2	1079.5	942.0
60°	1058.5	1056.1	1051.3	1042.8	1031.9	963.4	898.1	906.2	1106.9	1145.6	972.7
62.5°	1094.4	1089.6	1086.0	1077.5	1067.4	1019.8	965.4	967.8	1213.7	1153.7	942.9
65°	1195.2	1186.3	1180.3	1169.0	1157.7	1104.9	1051.3	1025.1	1266.1	1078.3	841.7
67.5°	1406.4	1391.9	1374.6	1353.2	1322.2	1274.6	1136.3	1033.1	1218.6	913.4	663.9
70°	1824.0	1792.6	1752.7	1707.1	1695.4	1556.8	1189.5	973.5	1013.0	638.1	440.2
72.5°	2385.1	2352.5	2317.0	2279.5	2205.4	1900.6	1166.2	785.2	630.0	328.1	209.6
73°	2394.4	2372.2	2329.5	2286.0	2225.5	1894.6	1140.8	724.0	555.5	258.4	171.7
75°	2147.3	2138.4	2096.5	2012.7	1961.5	1600.3	840.1	419.6	243.1	159.6	111.7
77.5°	1393.5	1383.8	1360.1	1352.0	1257.7	1037.6	376.1	163.3	132.2	106.0	79.0
80°	742.5	697.4	689.3	657.1	588.1	399.5	128.6	100.0	87.9	70.9	55.2
82.5°	301.1	281.8	274.5	248.7	233.8	119.7	64.5	69.3	58.9	41.9	33.9
85°	110.9	102.0	99.6	81.0	71.3	35.5	39.5	48.8	36.7	23.4	16.9
87.5°	38.3	33.1	28.6	22.2	20.6	14.5	21.8	26.6	23.4	14.1	8.1
90°	10.6	10.1	9.6	9.1	9.4	8.6	9.4	12.6	13.0	9.4	8.6
92.5°	6.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	6.0	6.0	6.0
95°	7.0	7.0	7.0	7.0	7.0	7.0	7.0	8.0	7.0	7.0	7.0
97.5°	9.0	9.0	9.0	9.0	9.0	9.0	12.0	10.0	9.0	8.0	8.0
100°	13.8	14.7	15.6	16.5	17.4	21.0	29.0	26.0	23.0	19.0	19.0
102.5°	29.6	30.9	32.2	33.5	34.8	40.0	50.0	47.0	42.0	39.0	38.0
105°	51.0	52.5	54.0	55.5	57.0	63.0	72.0	70.0	65.0	61.0	61.0
107.5°	76.0	77.5	79.0	80.5	82.0	88.0	95.0	94.0	90.0	87.0	86.0



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CANDELA DISTRIBUTION (continued):

	37°	38°	39°	40°	41°	45°	55°	65°	75°	85°	90°
110°	104.4	105.6	106.8	108.0	109.2	114.0	120.0	121.0	119.0	116.0	117.0
112.5°	135.8	136.7	137.6	138.5	139.4	143.0	148.0	150.0	149.0	147.0	147.0
115°	169.2	169.8	170.4	171.0	171.6	174.0	179.0	182.0	179.0	177.0	178.0
117.5°	202.6	202.9	203.2	203.5	203.8	205.0	211.0	215.0	210.0	208.0	209.0
120°	238.2	238.8	239.4	240.0	240.6	243.0	246.0	250.0	245.0	243.0	243.0
122.5°	272.2	272.8	273.4	274.0	274.6	277.0	279.0	283.0	278.0	276.0	277.0
125°	306.0	306.5	307.0	307.5	308.0	310.0	313.0	315.0	310.0	310.0	310.0
127.5°	339.2	339.3	339.4	339.5	339.6	340.0	345.0	346.0	346.0	345.0	347.0
130°	370.4	370.6	370.8	371.0	371.2	372.0	377.0	381.0	381.0	379.0	380.0
132.5°	404.2	404.3	404.4	404.5	404.6	405.0	411.0	416.0	414.0	414.0	415.0
135°	435.4	435.6	435.8	436.0	436.2	437.0	443.0	448.0	447.0	450.0	451.0
137.5°	464.8	465.2	465.6	466.0	466.4	468.0	473.0	475.0	476.0	481.0	482.0
140°	492.2	492.8	493.4	494.0	494.6	497.0	500.0	502.0	504.0	509.0	511.0
142.5°	521.8	522.2	522.6	523.0	523.4	525.0	527.0	533.0	533.0	534.0	536.0
145°	550.2	550.3	550.4	550.5	550.6	551.0	556.0	562.0	561.0	558.0	560.0
147.5°	574.2	574.3	574.4	574.5	574.6	575.0	580.0	585.0	586.0	583.0	585.0
150°	593.0	593.0	593.0	593.0	593.0	593.0	597.0	600.0	603.0	606.0	610.0
152.5°	610.0	610.0	610.0	610.0	610.0	610.0	611.0	614.0	618.0	623.0	628.0
155°	629.6	629.4	629.2	629.0	628.8	628.0	626.0	631.0	636.0	638.0	641.0
157.5°	645.8	645.7	645.6	645.5	645.4	645.0	644.0	648.0	650.0	650.0	655.0
160°	655.0	655.0	655.0	655.0	655.0	655.0	658.0	664.0	661.0	660.0	666.0
162.5°	661.4	661.6	661.8	662.0	662.2	663.0	667.0	671.0	670.0	668.0	674.0
165°	673.0	673.0	673.0	673.0	673.0	673.0	672.0	677.0	680.0	678.0	682.0
167.5°	687.4	687.1	686.8	686.5	686.2	685.0	678.0	684.0	688.0	688.0	694.0
170°	692.6	692.4	692.2	692.0	691.8	691.0	686.0	689.0	694.0	696.0	701.0
172.5°	690.0	690.0	690.0	690.0	690.0	690.0	689.0	692.0	694.0	696.0	701.0
175°	690.8	690.7	690.6	690.5	690.4	690.0	690.0	695.0	696.0	694.0	699.0
177.5°	696.6	696.4	696.2	696.0	695.8	695.0	694.0	699.0	701.0	698.0	702.0
180°	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0



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CATALOG NUMBER: ISW-AF-450-LED-E1-T4FT-7030-ULG

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	413.2	413.2	413.2	413.2	413.2	413.2	413.2	413.2	413.2	413.2
2.5°	414.8	416.4	419.6	422.0	424.1	426.9	427.7	429.3	427.3	429.7
5°	413.2	418.0	424.1	429.7	434.9	439.4	441.4	441.8	442.2	443.8
7.5°	409.1	416.4	426.1	433.7	441.8	444.6	445.8	446.2	443.4	444.6
10°	401.1	412.8	424.9	434.1	438.2	436.2	432.9	427.7	425.3	425.3
12.5°	392.2	407.1	421.2	426.5	422.9	415.2	406.3	396.7	393.0	393.0
15°	385.0	403.9	415.6	412.0	401.5	387.0	374.9	364.8	361.6	360.4
17.5°	380.9	402.3	406.7	395.4	377.7	359.6	347.5	339.0	336.2	336.2
20°	384.2	403.9	396.7	375.7	353.5	337.0	326.5	320.9	318.0	319.3
22.5°	397.9	410.0	387.8	356.3	329.3	315.2	310.4	306.8	306.4	307.2
25°	420.8	418.0	380.1	336.2	306.8	296.7	296.3	295.1	294.7	294.3
27.5°	450.7	428.1	370.9	313.6	284.2	279.3	281.8	281.4	281.0	281.4
30°	490.2	437.0	357.1	289.0	262.8	262.8	266.4	265.2	263.6	264.0
32.5°	526.9	443.4	336.2	261.6	245.9	246.7	247.9	244.7	240.7	241.5
35°	558.3	443.4	308.0	237.0	228.6	228.6	229.4	226.5	223.3	222.1
37.5°	584.5	434.5	272.5	218.5	214.4	214.4	217.7	214.9	208.8	207.6
40°	600.2	415.2	239.8	204.8	207.6	208.0	203.6	198.7	193.1	191.9
42.5°	610.3	387.0	214.0	195.1	203.2	199.9	189.5	181.8	181.4	183.0
45°	619.2	355.1	193.5	185.4	198.3	191.5	177.4	170.1	172.5	174.1
47.5°	628.0	323.3	177.0	174.5	189.5	184.6	169.7	161.6	160.4	162.9
50°	649.0	278.9	158.0	161.6	178.6	177.0	162.9	153.6	145.9	145.5
52.5°	677.2	219.7	141.9	150.4	170.1	172.5	155.2	146.3	135.8	134.2
55°	708.7	168.5	128.6	141.5	162.0	166.1	152.4	139.1	127.8	126.2
57.5°	717.9	133.0	116.1	129.0	151.2	160.0	147.9	130.6	122.1	120.5
60°	686.1	110.4	105.6	118.5	140.3	154.0	141.1	124.2	116.5	115.3
62.5°	588.9	97.6	100.0	111.7	132.2	148.3	135.8	119.3	113.3	112.5
65°	449.5	88.7	95.1	106.0	125.0	143.1	132.2	117.3	112.5	111.7
67.5°	282.2	82.2	90.3	100.0	117.7	137.5	129.4	114.9	111.3	110.0
70°	156.4	75.4	83.8	93.1	110.4	132.2	125.8	111.3	110.9	108.4
72.5°	95.1	68.1	77.0	85.9	102.4	125.8	119.3	106.8	102.8	98.0
73°	90.7	67.3	75.4	84.2	100.4	124.2	118.1	105.2	101.2	96.3
75°	73.4	60.5	68.9	76.6	93.1	117.7	111.3	99.6	93.1	89.5
77.5°	54.0	51.6	59.7	66.9	83.8	108.8	101.6	91.1	83.4	81.4
80°	39.9	42.7	50.4	56.8	73.8	100.0	91.5	81.4	76.6	74.2
82.5°	27.0	33.1	40.3	45.6	65.3	90.3	81.0	71.3	74.6	62.1
85°	15.7	23.0	29.0	35.5	52.4	80.6	70.5	60.9	53.2	48.0
87.5°	10.5	12.9	17.7	24.2	37.9	63.3	56.0	47.6	34.7	34.7
90°	8.2	10.6	11.4	9.8	12.2	35.0	26.5	29.2	9.0	8.6
92.5°	6.0	6.0	7.0	7.0	6.0	6.0	6.0	5.0	4.0	4.0
95°	7.0	7.0	8.0	7.0	7.0	7.0	7.0	6.0	5.0	5.0
97.5°	8.0	9.0	10.0	12.0	9.0	9.0	8.0	8.0	7.0	7.0
100°	19.0	23.0	26.0	29.0	21.0	12.0	10.0	9.0	8.0	8.0
102.5°	39.0	42.0	47.0	50.0	40.0	27.0	18.0	13.0	11.0	11.0
105°	61.0	65.0	70.0	72.0	63.0	48.0	36.0	27.0	22.0	21.0
107.5°	87.0	90.0	94.0	95.0	88.0	73.0	58.0	49.0	42.0	41.0



REPORT NUMBER: P226504

CATALOG NUMBER: ISW-AF-450-LED-E1-T4FT-7030-ULG

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	116.0	119.0	121.0	120.0	114.0	102.0	87.0	74.0	68.0	66.0
112.5°	147.0	149.0	150.0	148.0	143.0	134.0	121.0	106.0	99.0	99.0
115°	177.0	179.0	182.0	179.0	174.0	168.0	159.0	147.0	139.0	140.0
117.5°	208.0	210.0	215.0	211.0	205.0	202.0	197.0	189.0	184.0	184.0
120°	243.0	245.0	250.0	246.0	243.0	237.0	233.0	226.0	223.0	225.0
122.5°	276.0	278.0	283.0	279.0	277.0	271.0	267.0	261.0	260.0	263.0
125°	310.0	310.0	315.0	313.0	310.0	305.0	299.0	296.0	294.0	298.0
127.5°	345.0	346.0	346.0	345.0	340.0	339.0	333.0	329.0	329.0	330.0
130°	379.0	381.0	381.0	377.0	372.0	370.0	366.0	362.0	361.0	363.0
132.5°	414.0	414.0	416.0	411.0	405.0	404.0	401.0	393.0	394.0	396.0
135°	450.0	447.0	448.0	443.0	437.0	435.0	432.0	426.0	426.0	429.0
137.5°	481.0	476.0	475.0	473.0	468.0	464.0	460.0	459.0	457.0	460.0
140°	509.0	504.0	502.0	500.0	497.0	491.0	489.0	487.0	485.0	488.0
142.5°	534.0	533.0	533.0	527.0	525.0	521.0	518.0	517.0	515.0	518.0
145°	558.0	561.0	562.0	556.0	551.0	550.0	547.0	544.0	546.0	550.0
147.5°	583.0	586.0	585.0	580.0	575.0	574.0	574.0	571.0	572.0	575.0
150°	606.0	603.0	600.0	597.0	593.0	593.0	593.0	593.0	592.0	595.0
152.5°	623.0	618.0	614.0	611.0	610.0	610.0	609.0	608.0	608.0	611.0
155°	638.0	636.0	631.0	626.0	628.0	630.0	627.0	625.0	625.0	629.0
157.5°	650.0	650.0	648.0	644.0	645.0	646.0	644.0	643.0	643.0	646.0
160°	660.0	661.0	664.0	658.0	655.0	655.0	656.0	659.0	660.0	663.0
162.5°	668.0	670.0	671.0	667.0	663.0	661.0	665.0	669.0	669.0	673.0
165°	678.0	680.0	677.0	672.0	673.0	673.0	676.0	676.0	678.0	681.0
167.5°	688.0	688.0	684.0	678.0	685.0	688.0	686.0	684.0	687.0	690.0
170°	696.0	694.0	689.0	686.0	691.0	693.0	692.0	692.0	695.0	698.0
172.5°	696.0	694.0	692.0	689.0	690.0	690.0	693.0	695.0	697.0	699.0
175°	694.0	696.0	695.0	690.0	690.0	691.0	695.0	697.0	698.0	700.0
177.5°	698.0	701.0	699.0	694.0	695.0	697.0	699.0	700.0	705.0	707.0
180°	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0

(END OF REPORT)