

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: P226640

Luminaire Tested: **ISW-AF-1200-LED-E1-T4W-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P226640
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35944)-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-1200-LED-E1-T4W-ULG
Description: IMPACT ELITE LED WEDGE LUMINAIRE WITH UPLIGHT
LIGHT SQUARE WITH ACCULED OPTICS-TYPE IV WIDE, 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: 8833.5 lumens
Efficiency: N/A
Efficacy: 106.8 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.54')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B1 - U5 - G2

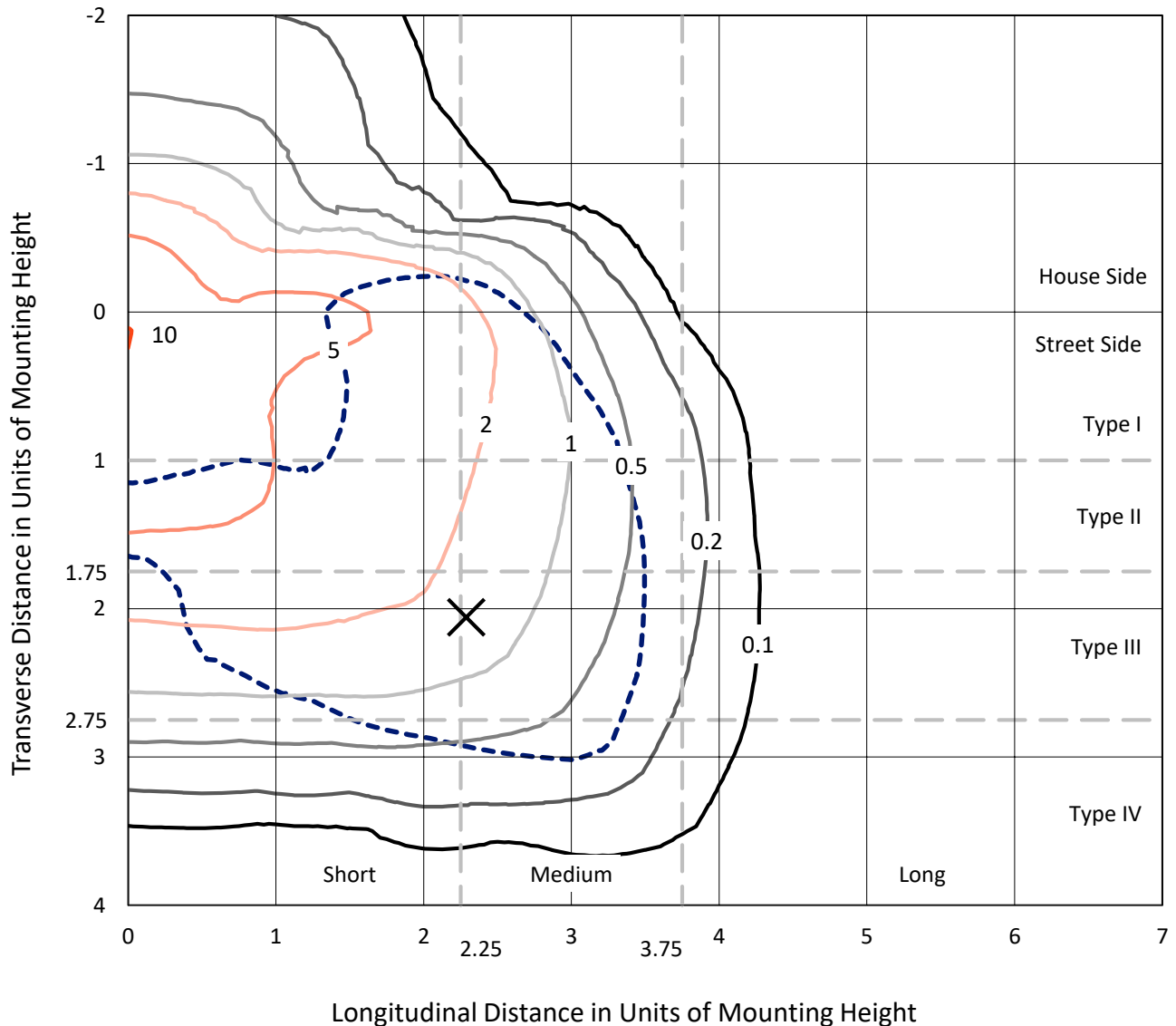
Input Watts (W): 82.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

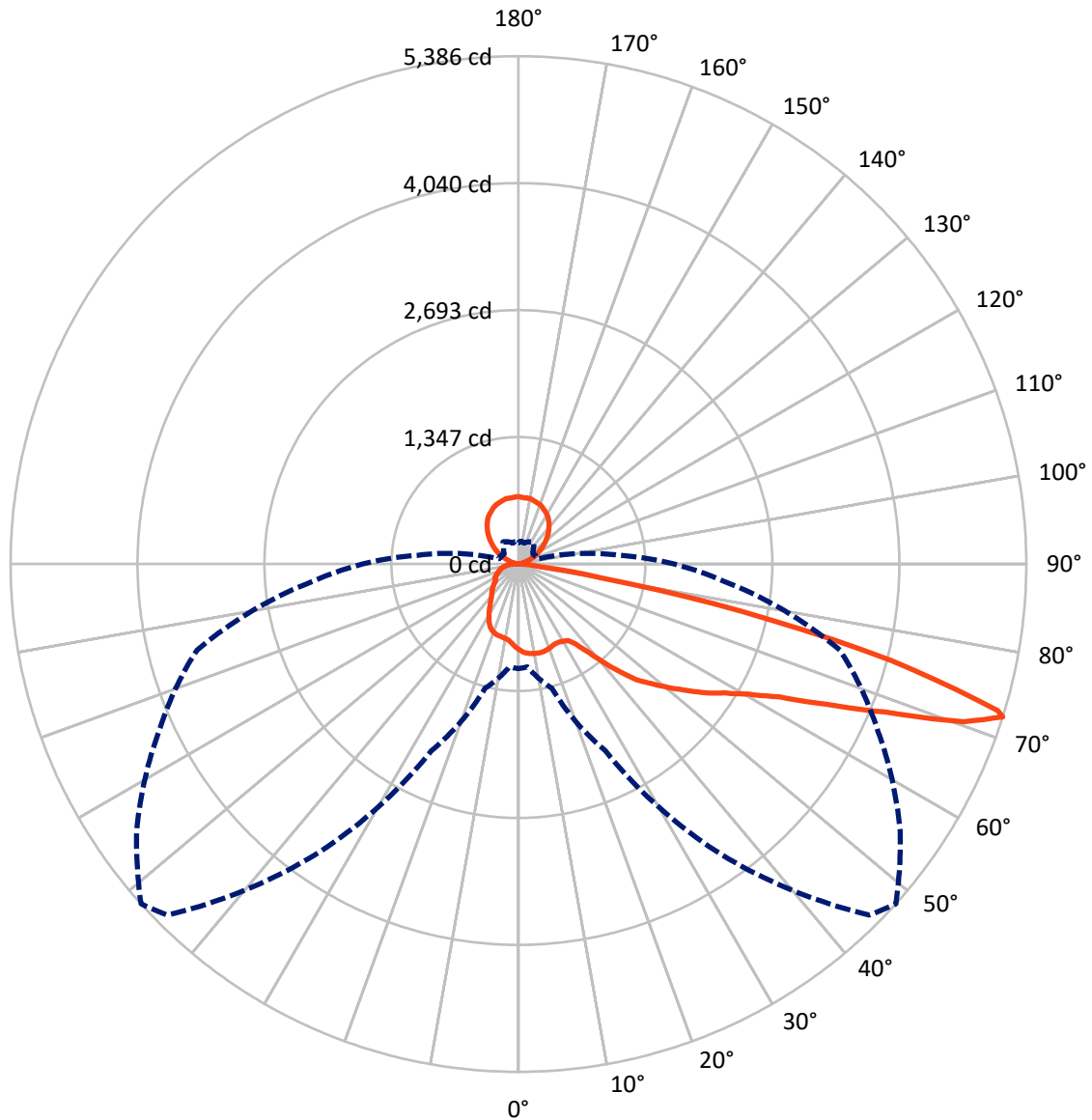
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.2 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 48-Deg Lateral - - - Horizontal Cone Through 72-Deg Vertical

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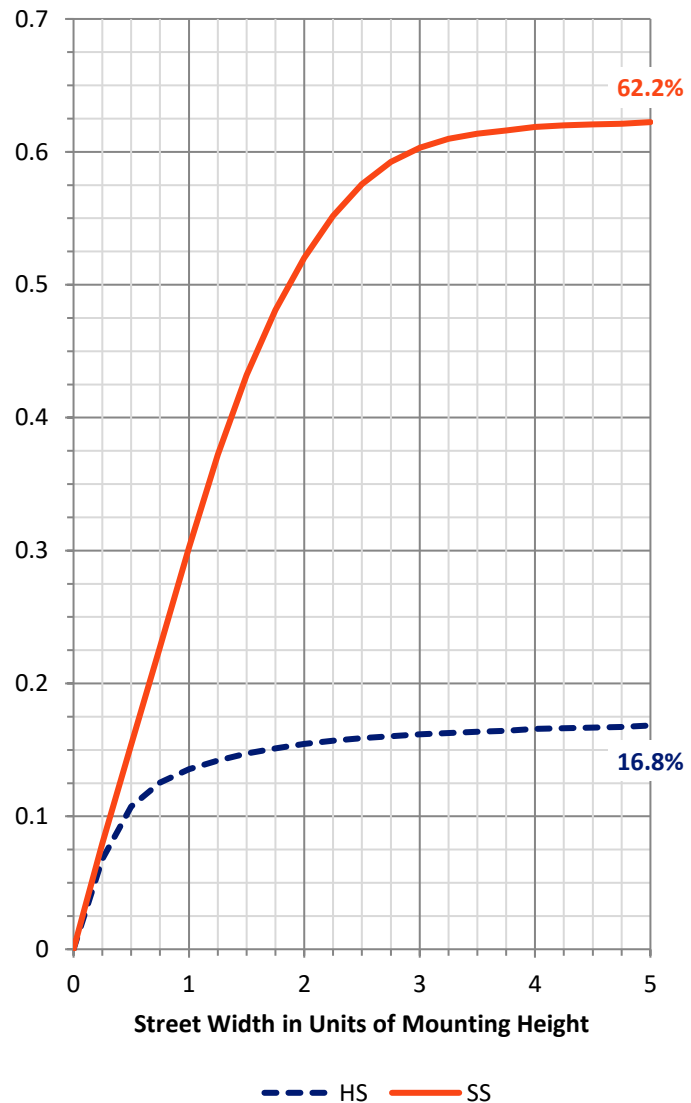
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1533.4	890.6	2424.0
	% Fixture	17.4	10.1	27.4
Street Side	Lumens	5520.9	888.6	6409.5
	% Fixture	62.5	10.1	72.6
Total	Lumens	7054.3	1779.2	8833.5
	% Fixture	79.9	20.1	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.8	1.0
10°-20°	250.8	2.8
20°-30°	386.7	4.4
30°-40°	579.6	6.6
40°-50°	965.2	10.9
50°-60°	1508.3	17.1
60°-70°	1992.3	22.6
70°-80°	1152.5	13.0
80°-90°	133.2	1.5
90°-100°	13.8	0.2
100°-110°	58.7	0.7
110°-120°	169.9	1.9
120°-130°	279.4	3.2
130°-140°	344.6	3.9
140°-150°	352.5	4.0
150°-160°	297.0	3.4
160°-170°	195.5	2.2
170°-180°	67.8	0.8
0°-90°	7054.3	79.9
0°-180°	8833.5	100.0



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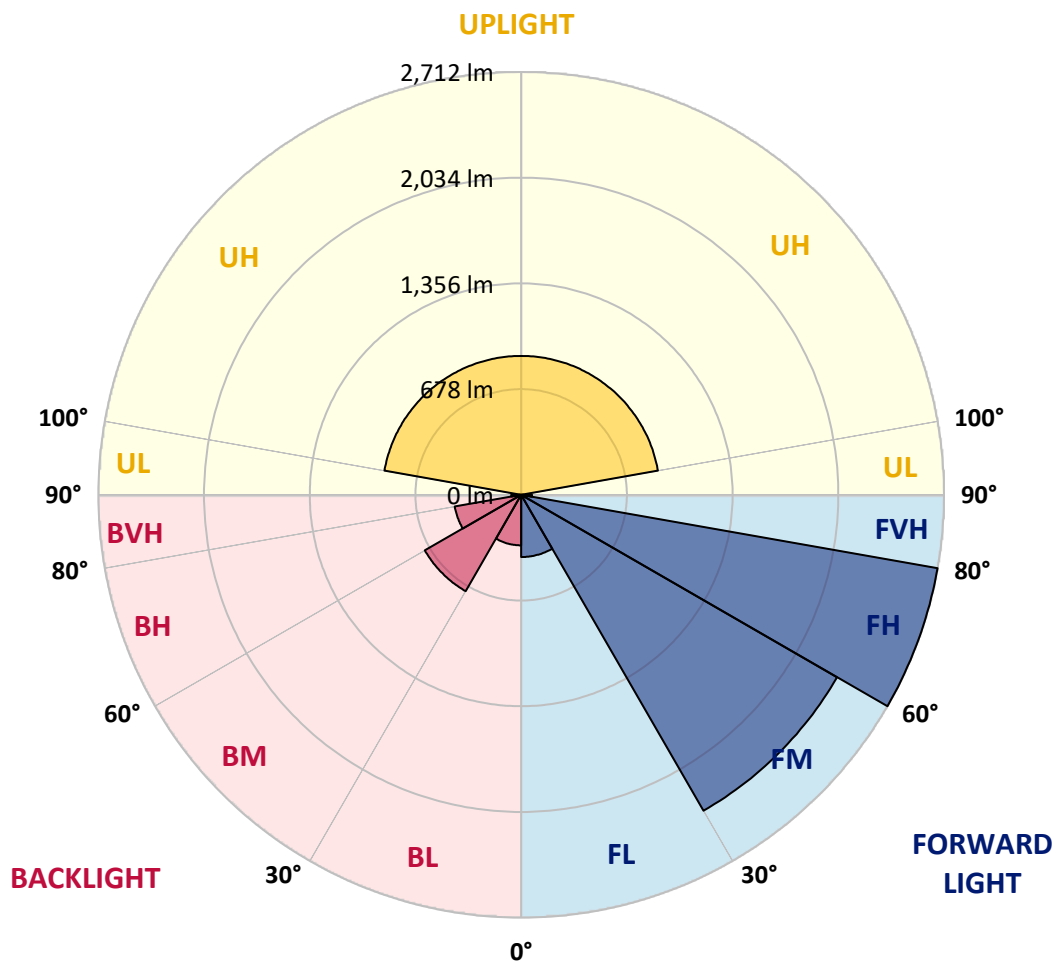
CATALOG NUMBER: ISW-AF-1200-LED-E1-T4W-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	399.0	4.5			
FM	(30°-60°)	2339.8	26.5			
FH	(60°-80°)	2712.3	30.7			G2/5000
FVH	(80°-90°)	69.9	0.8			G1/100
BL	(0°-30°)	324.3	3.7	B1/500		
BM	(30°-60°)	713.3	8.1	B1/1000		
BH	(60°-80°)	432.5	4.9	B1/500		G1/500
BVH	(80°-90°)	63.3	0.7			G1/100
UL	(90°-100°)	13.8	0.2		U2/50	
UH	(100°-180°)	890.6	10.1		U4/1000	

BUG Rating: B1-U5-G2

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	48°	55°	65°	75°	85°
0°	907.9	907.9	907.9	907.9	907.9	907.9	907.9	907.9	907.9	907.9	907.9
2.5°	956.0	955.0	955.0	946.8	943.8	938.7	934.6	928.4	922.3	915.1	905.8
5°	1002.1	1005.2	1001.1	988.8	973.4	957.1	950.9	936.6	917.2	899.7	883.3
7.5°	1046.1	1047.1	1035.8	1015.4	991.9	966.3	958.1	938.7	917.2	893.5	870.0
10°	1077.9	1078.9	1062.4	1033.8	1002.1	973.4	964.2	944.8	918.2	892.5	862.9
12.5°	1096.3	1097.3	1072.7	1043.0	1005.2	976.5	968.3	947.9	920.2	887.4	854.7
15°	1093.2	1096.3	1075.8	1043.0	1003.1	977.5	967.3	949.9	915.1	882.3	847.5
17.5°	1072.7	1076.9	1060.4	1024.6	992.9	972.4	961.2	943.8	910.0	875.1	837.3
20°	1032.8	1037.9	1030.7	995.9	974.5	958.1	950.9	934.6	902.8	867.0	828.1
22.5°	987.8	992.9	990.8	962.2	952.0	943.8	936.6	924.3	896.6	860.8	824.0
25°	955.0	959.1	956.0	931.5	934.6	934.6	930.5	921.3	895.6	862.9	824.0
27.5°	1009.2	1009.2	982.6	932.5	927.4	936.6	934.6	929.5	909.0	873.1	832.2
30°	1207.8	1192.5	1144.4	1018.4	954.0	949.9	948.9	945.8	927.4	895.6	857.7
32.5°	1430.0	1414.6	1357.3	1199.6	1065.5	977.5	968.3	969.3	964.2	934.6	896.6
35°	1627.5	1625.5	1580.5	1409.5	1238.6	1074.8	1037.9	1013.3	1011.3	999.0	969.3
37.5°	1787.2	1787.2	1791.3	1596.8	1425.9	1229.3	1166.9	1089.1	1089.1	1082.0	1063.5
40°	1969.4	1977.6	1986.8	1766.7	1626.5	1413.6	1342.9	1225.2	1189.4	1200.6	1204.7
42.5°	2208.9	2219.1	2212.9	1976.5	1809.7	1633.7	1546.6	1404.4	1316.3	1334.7	1377.7
45°	2370.6	2374.7	2418.8	2195.6	2040.0	1819.9	1746.3	1550.7	1463.7	1501.6	1577.4
47.5°	2553.8	2564.1	2571.3	2444.3	2310.2	2030.8	1895.6	1693.0	1636.7	1694.0	1813.8
50°	2733.0	2719.6	2739.2	2734.0	2566.2	2218.1	2057.4	1826.1	1830.2	1908.0	2104.5
52.5°	2888.5	2843.5	2888.5	2944.9	2895.8	2410.6	2223.2	1982.7	2042.0	2137.3	2447.4
55°	3008.3	2899.9	2975.6	3135.2	3124.0	2580.5	2412.6	2191.5	2290.8	2420.8	2864.0
57.5°	2763.7	2777.0	2985.8	3263.2	3258.1	2752.5	2578.4	2452.5	2574.4	2719.6	3357.3
60°	2535.4	2594.8	2917.3	3283.7	3351.2	2939.8	2801.6	2749.4	2861.9	3039.0	3830.2
62.5°	2414.7	2470.9	2805.6	3245.8	3499.6	3217.1	3101.5	3061.6	3215.0	3413.7	4252.0
65°	2452.5	2487.3	2798.5	3303.1	3670.6	3636.8	3586.7	3520.1	3596.9	3783.2	4442.4
67.5°	2346.0	2403.4	2739.2	3404.5	3982.8	4148.6	4190.5	4118.9	4054.5	4028.8	4164.9
70°	1746.3	1801.5	2153.6	2985.8	4238.7	5037.1	5011.4	4772.0	4337.9	3975.6	3254.0
72°	1109.6	1094.3	1363.4	2187.4	3767.8	5265.3	5386.1	4942.9	4208.9	3530.3	2209.9
72.5°	806.6	879.2	1131.1	1944.8	3579.5	5140.4	5316.5	4887.7	4040.0	3334.8	1943.8
75°	196.5	207.8	271.3	697.0	2096.3	3868.1	4089.2	3776.0	2949.0	1979.6	861.8
77.5°	133.1	138.2	179.1	245.6	616.2	2205.8	2427.0	2085.1	1319.4	673.5	383.8
80°	99.3	102.4	130.0	174.0	255.9	752.4	887.4	705.2	328.6	373.6	273.3
82.5°	69.6	71.6	98.3	128.0	169.9	176.0	234.4	259.0	212.9	244.6	159.7
85°	48.1	48.1	71.6	88.1	107.5	87.1	93.2	130.0	144.3	145.4	97.3
87.5°	25.6	28.6	41.9	56.3	56.3	39.9	44.0	66.5	80.8	87.1	58.3
90°	14.3	14.3	24.6	29.7	21.5	17.4	16.4	20.5	28.6	36.8	25.6
92.5°	4.1	4.1	5.1	6.1	6.1	6.1	6.4	7.2	7.2	6.1	6.1
95°	5.1	5.1	6.1	7.2	7.2	7.2	7.2	7.2	8.2	7.2	7.2
97.5°	7.2	7.2	8.2	8.2	9.2	9.2	10.1	12.3	10.2	9.2	8.2
100°	8.2	8.2	9.2	10.2	12.3	21.5	23.9	29.7	26.6	23.5	19.4
102.5°	11.3	11.3	13.3	18.4	27.6	40.9	44.0	51.1	48.1	43.0	39.9
105°	21.5	22.5	27.6	36.8	49.1	64.4	67.2	73.7	71.6	66.5	62.4
107.5°	41.9	43.0	50.1	59.3	74.7	90.0	92.2	97.2	96.2	92.1	89.0



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CATALOG NUMBER: ISW-AF-1200-LED-E1-T4W-ULG

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	48°	55°	65°	75°	85°
110°	67.5	69.6	75.7	89.0	104.3	116.6	118.5	122.8	123.8	121.7	118.7
112.5°	101.3	101.3	108.4	123.8	137.1	146.3	147.8	151.4	153.4	152.4	150.4
115°	143.2	142.2	150.4	162.6	171.9	178.0	179.5	183.1	186.2	183.1	181.1
117.5°	188.2	188.2	193.3	201.5	206.6	209.7	211.5	215.8	219.9	214.8	212.8
120°	230.2	228.1	231.2	238.3	242.4	248.6	249.5	251.6	255.7	250.6	248.6
122.5°	269.0	266.0	267.0	273.1	277.2	283.4	284.0	285.4	289.5	284.4	282.3
125°	304.8	300.7	302.8	305.9	312.0	317.1	318.0	320.2	322.2	317.1	317.1
127.5°	337.6	336.6	336.6	340.6	346.8	347.8	349.3	352.9	353.9	353.9	352.9
130°	371.3	369.3	370.3	374.4	378.5	380.5	382.1	385.7	389.7	389.7	387.7
132.5°	405.1	403.0	402.0	410.2	413.3	414.3	416.1	420.4	425.5	423.5	423.5
135°	438.8	435.8	435.8	441.9	445.0	447.0	448.9	453.2	458.3	457.3	460.3
137.5°	470.6	467.5	469.5	470.6	474.6	478.7	480.3	483.9	485.9	486.9	492.0
140°	499.2	496.1	498.2	500.2	502.3	508.4	509.3	511.5	513.5	515.6	520.7
142.5°	529.9	526.8	528.9	529.9	533.0	537.0	537.7	539.1	545.2	545.2	546.3
145°	562.6	558.5	556.5	559.6	562.6	563.6	565.2	568.8	574.9	573.9	570.8
147.5°	588.2	585.1	584.1	587.2	587.2	588.2	589.7	593.3	598.4	599.4	596.4
150°	608.7	605.6	606.6	606.6	606.6	606.6	607.8	610.7	613.8	616.8	619.9
152.5°	625.0	622.0	622.0	623.0	624.0	624.0	624.3	625.0	628.1	632.2	637.3
155°	643.4	639.3	639.3	641.4	644.5	642.4	641.8	640.4	645.5	650.6	652.6
157.5°	660.8	657.8	657.8	658.8	660.8	659.8	659.5	658.8	662.9	664.9	664.9
160°	678.2	675.1	674.1	671.1	670.0	670.0	671.0	673.1	679.2	676.2	675.1
162.5°	688.4	684.4	684.4	680.3	676.2	678.2	679.4	682.3	686.4	685.4	683.3
165°	696.6	693.6	691.5	691.5	688.4	688.4	688.1	687.4	692.5	695.6	693.6
167.5°	705.8	702.8	699.7	701.7	703.8	700.7	698.6	693.6	699.7	703.8	703.8
170°	714.0	711.0	707.9	707.9	708.9	706.9	705.3	701.7	704.8	709.9	712.0
172.5°	715.0	713.0	711.0	708.9	705.8	705.8	705.5	704.8	707.9	709.9	712.0
175°	716.1	714.0	713.0	711.0	706.9	705.8	705.8	705.8	711.0	712.0	709.9
177.5°	723.2	721.2	716.1	715.0	713.0	711.0	710.6	709.9	715.0	717.1	714.0
180°	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	907.9	907.9	907.9	907.9	907.9	907.9	907.9	907.9	907.9	907.9	907.9
2.5°	903.8	897.6	889.5	885.4	883.3	879.2	875.1	873.1	873.1	869.0	870.0
5°	875.1	865.9	854.7	846.5	845.5	845.5	847.5	847.5	848.5	845.5	849.6
7.5°	860.8	850.6	834.2	825.0	817.8	816.8	820.9	829.1	833.2	830.1	834.2
10°	850.6	839.3	820.9	809.7	804.6	802.5	805.6	813.8	827.1	827.1	831.1
12.5°	840.4	826.0	807.6	799.4	795.3	796.4	800.5	806.6	820.9	826.0	828.1
15°	830.1	813.8	798.4	787.2	787.2	790.2	795.3	802.5	815.8	825.0	827.1
17.5°	819.9	803.5	790.2	781.0	781.0	785.1	790.2	799.4	808.6	821.9	821.9
20°	810.7	797.4	780.0	771.8	770.8	773.9	780.0	789.2	796.4	809.7	810.7
22.5°	805.6	789.2	772.8	760.6	755.4	753.4	759.5	768.7	775.9	789.2	791.3
25°	803.5	785.1	764.7	742.0	728.8	724.7	727.7	739.0	745.2	755.4	758.5
27.5°	810.7	793.3	761.6	720.6	692.9	681.7	684.8	691.9	694.0	705.2	710.3
30°	835.2	814.8	767.7	698.1	647.9	627.5	627.5	628.5	631.6	640.8	641.8
32.5°	875.1	855.7	786.1	674.5	601.9	573.2	566.0	560.9	560.9	559.9	560.9
35°	948.9	932.5	817.8	647.9	551.7	520.0	502.6	493.4	484.2	480.1	479.0
37.5°	1055.3	1041.0	862.9	617.2	507.7	476.0	454.5	436.1	425.9	424.8	429.9
40°	1213.9	1199.6	913.1	582.5	465.7	442.2	419.7	400.2	388.9	389.9	395.1
42.5°	1409.5	1365.4	967.3	535.3	432.0	419.7	395.1	378.7	367.4	361.3	360.3
45°	1637.7	1564.0	1018.4	491.3	395.1	400.2	376.7	358.2	343.9	327.5	325.5
47.5°	1922.3	1762.6	1063.5	447.3	355.2	379.7	357.2	339.8	318.3	298.9	295.8
50°	2219.1	1990.9	1102.4	400.2	319.4	357.2	337.8	314.3	284.6	267.2	267.2
52.5°	2562.1	2265.2	1152.6	348.0	291.7	332.7	313.2	282.5	258.0	255.9	255.9
55°	2943.8	2552.8	1187.3	307.1	270.3	306.1	296.9	287.7	279.5	281.5	282.5
57.5°	3343.0	2852.7	1156.7	278.4	252.9	299.9	326.5	314.3	288.7	287.7	286.6
60°	3686.9	3086.1	986.7	260.0	239.5	310.2	350.1	314.3	288.7	302.0	303.0
62.5°	3912.2	3196.6	657.1	236.4	220.0	292.8	341.9	305.0	289.7	327.5	330.6
65°	3881.5	3072.8	377.7	220.0	207.8	269.2	330.6	293.8	270.3	291.7	285.6
67.5°	3423.9	2575.4	273.3	212.9	198.6	252.9	310.2	277.4	251.9	278.4	267.2
70°	2460.7	1753.4	235.4	206.7	192.4	233.3	295.8	267.2	241.5	260.0	242.5
72°	1651.0	1066.5	215.9	201.6	186.3	221.1	285.6	259.0	232.3	242.5	223.1
72.5°	1405.4	841.4	210.8	199.6	184.2	218.0	282.5	257.0	230.3	240.5	222.1
75°	525.1	329.6	187.3	184.2	169.9	202.6	270.3	247.8	220.0	217.0	208.8
77.5°	270.3	208.8	159.7	162.8	152.5	185.3	257.0	233.3	202.6	191.4	187.3
80°	196.5	151.5	129.0	138.2	130.0	166.8	238.4	211.9	184.2	172.0	166.8
82.5°	123.9	94.2	98.3	109.6	110.6	147.4	217.0	190.4	163.8	153.5	145.4
85°	59.3	56.3	69.6	80.8	89.1	124.9	198.6	168.9	143.3	122.9	123.9
87.5°	31.7	43.0	41.9	54.2	68.5	102.4	176.0	138.2	114.7	92.2	93.2
90°	14.3	18.4	21.5	30.7	34.8	51.1	121.8	87.0	83.9	37.8	33.8
92.5°	6.1	6.1	6.1	7.2	7.2	6.1	6.1	6.1	5.1	4.1	4.1
95°	7.2	7.2	7.2	8.2	7.2	7.2	7.2	7.2	6.1	5.1	5.1
97.5°	8.2	8.2	9.2	10.2	12.3	9.2	9.2	8.2	8.2	7.2	7.2
100°	19.4	19.4	23.5	26.6	29.7	21.5	12.3	10.2	9.2	8.2	8.2
102.5°	38.9	39.9	43.0	48.1	51.1	40.9	27.6	18.4	13.3	11.3	11.3
105°	62.4	62.4	66.5	71.6	73.7	64.4	49.1	36.8	27.6	22.5	21.5
107.5°	88.0	89.0	92.1	96.2	97.2	90.0	74.7	59.3	50.1	43.0	41.9



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	119.7	118.7	121.7	123.8	122.8	116.6	104.3	89.0	75.7	69.6	67.5
112.5°	150.4	150.4	152.4	153.4	151.4	146.3	137.1	123.8	108.4	101.3	101.3
115°	182.1	181.1	183.1	186.2	183.1	178.0	171.9	162.6	150.4	142.2	143.2
117.5°	213.8	212.8	214.8	219.9	215.8	209.7	206.6	201.5	193.3	188.2	188.2
120°	248.6	248.6	250.6	255.7	251.6	248.6	242.4	238.3	231.2	228.1	230.2
122.5°	283.4	282.3	284.4	289.5	285.4	283.4	277.2	273.1	267.0	266.0	269.0
125°	317.1	317.1	317.1	322.2	320.2	317.1	312.0	305.9	302.8	300.7	304.8
127.5°	355.0	352.9	353.9	353.9	352.9	347.8	346.8	340.6	336.6	336.6	337.6
130°	388.7	387.7	389.7	389.7	385.7	380.5	378.5	374.4	370.3	369.3	371.3
132.5°	424.5	423.5	423.5	425.5	420.4	414.3	413.3	410.2	402.0	403.0	405.1
135°	461.4	460.3	457.3	458.3	453.2	447.0	445.0	441.9	435.8	435.8	438.8
137.5°	493.1	492.0	486.9	485.9	483.9	478.7	474.6	470.6	469.5	467.5	470.6
140°	522.7	520.7	515.6	513.5	511.5	508.4	502.3	500.2	498.2	496.1	499.2
142.5°	548.3	546.3	545.2	545.2	539.1	537.0	533.0	529.9	528.9	526.8	529.9
145°	572.9	570.8	573.9	574.9	568.8	563.6	562.6	559.6	556.5	558.5	562.6
147.5°	598.4	596.4	599.4	598.4	593.3	588.2	587.2	587.2	584.1	585.1	588.2
150°	624.0	619.9	616.8	613.8	610.7	606.6	606.6	606.6	606.6	605.6	608.7
152.5°	642.4	637.3	632.2	628.1	625.0	624.0	624.0	623.0	622.0	622.0	625.0
155°	655.7	652.6	650.6	645.5	640.4	642.4	644.5	641.4	639.3	639.3	643.4
157.5°	670.0	664.9	664.9	662.9	658.8	659.8	660.8	658.8	657.8	657.8	660.8
160°	681.3	675.1	676.2	679.2	673.1	670.0	670.0	671.1	674.1	675.1	678.2
162.5°	689.5	683.3	685.4	686.4	682.3	678.2	676.2	680.3	684.4	684.4	688.4
165°	697.7	693.6	695.6	692.5	687.4	688.4	688.4	691.5	691.5	693.6	696.6
167.5°	709.9	703.8	703.8	699.7	693.6	700.7	703.8	701.7	699.7	702.8	705.8
170°	717.1	712.0	709.9	704.8	701.7	706.9	708.9	707.9	707.9	711.0	714.0
172.5°	717.1	712.0	709.9	707.9	704.8	705.8	705.8	708.9	711.0	713.0	715.0
175°	715.0	709.9	712.0	711.0	705.8	705.8	706.9	711.0	713.0	714.0	716.1
177.5°	718.1	714.0	717.1	715.0	709.9	711.0	713.0	715.0	716.1	721.2	723.2
180°	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1

(END OF REPORT)