

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: P299870

Luminaire Tested: **GLNA-AF-10-LED-E1-SL3-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299870
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24288)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-10-LED-E1-SL3-7030
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Square Medium OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 56796.7 lumens
Efficiency: N/A
Efficacy: 101.8 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B4 - U0 - G5

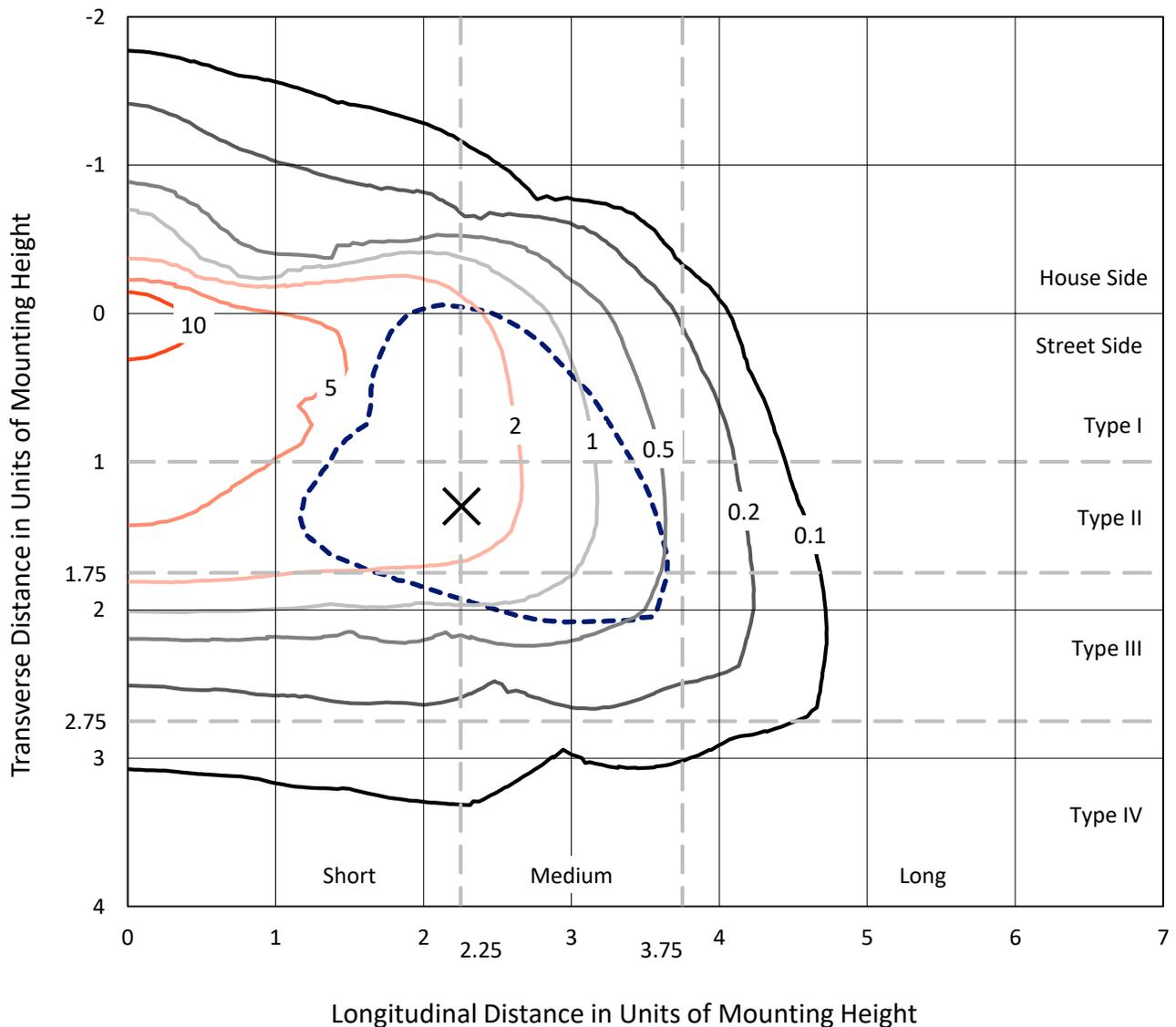
Input Watts (W): 558
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

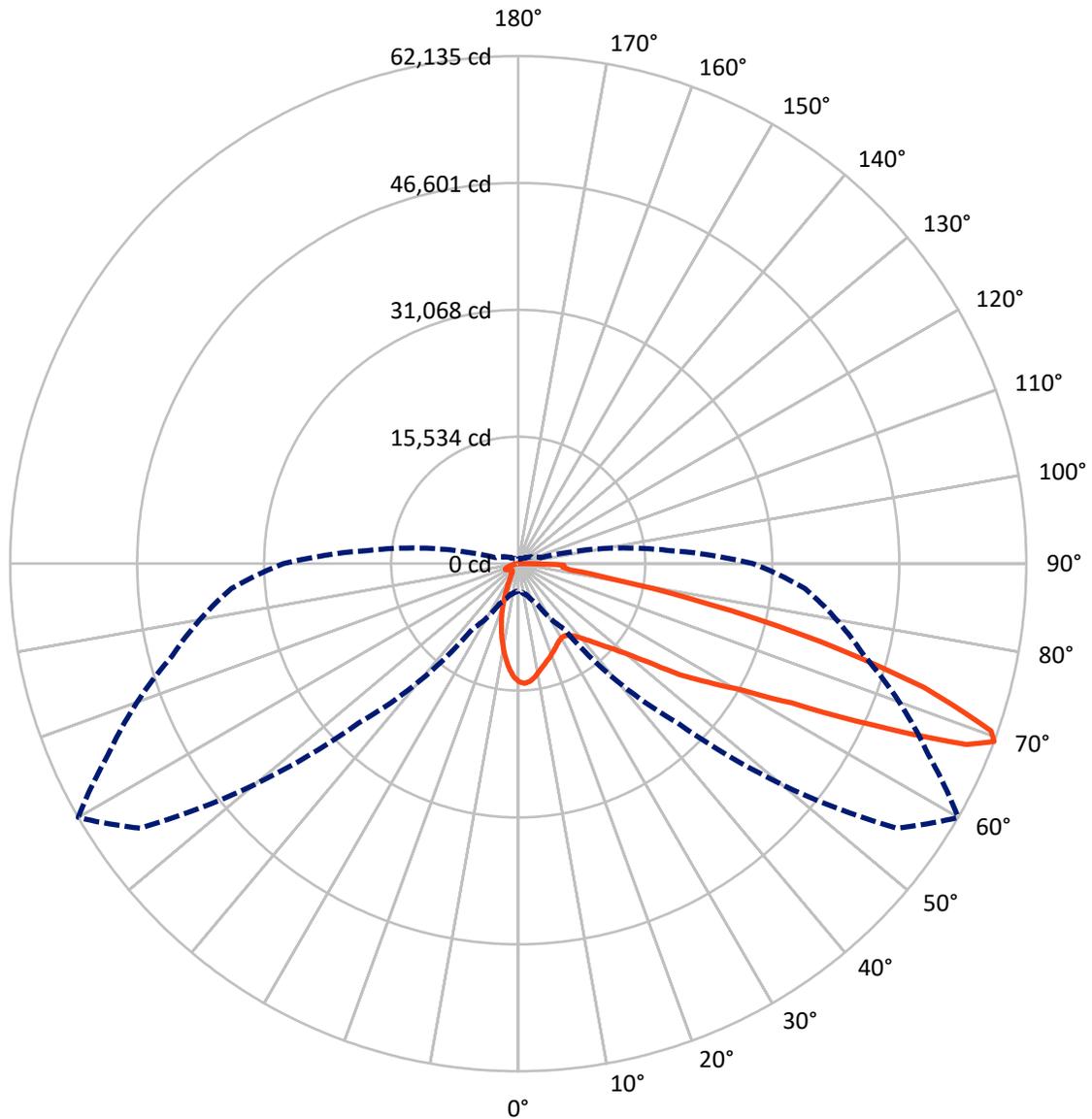
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 16.1 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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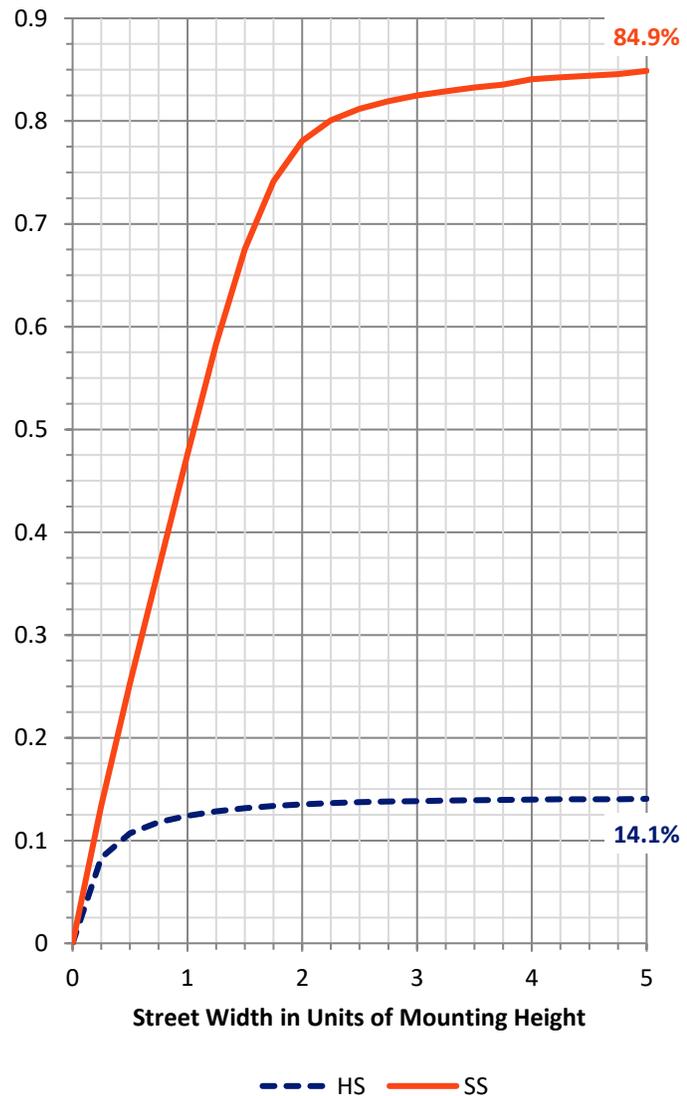
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8080.4	0.0	8080.4
	% Fixture	14.2	0.0	14.2
Street Side	Lumens	48716.4	0.0	48716.4
	% Fixture	85.8	0.0	85.8
Total	Lumens	56796.7	0.0	56796.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1223.7	2.2
10°-20°	2607.2	4.6
20°-30°	3322.1	5.8
30°-40°	4567.0	8.0
40°-50°	7410.4	13.0
50°-60°	11884.3	20.9
60°-70°	15817.1	27.8
70°-80°	8540.0	15.0
80°-90°	1425.0	2.5
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°	56796.7	100.0
0°-180°	56796.7	100.0



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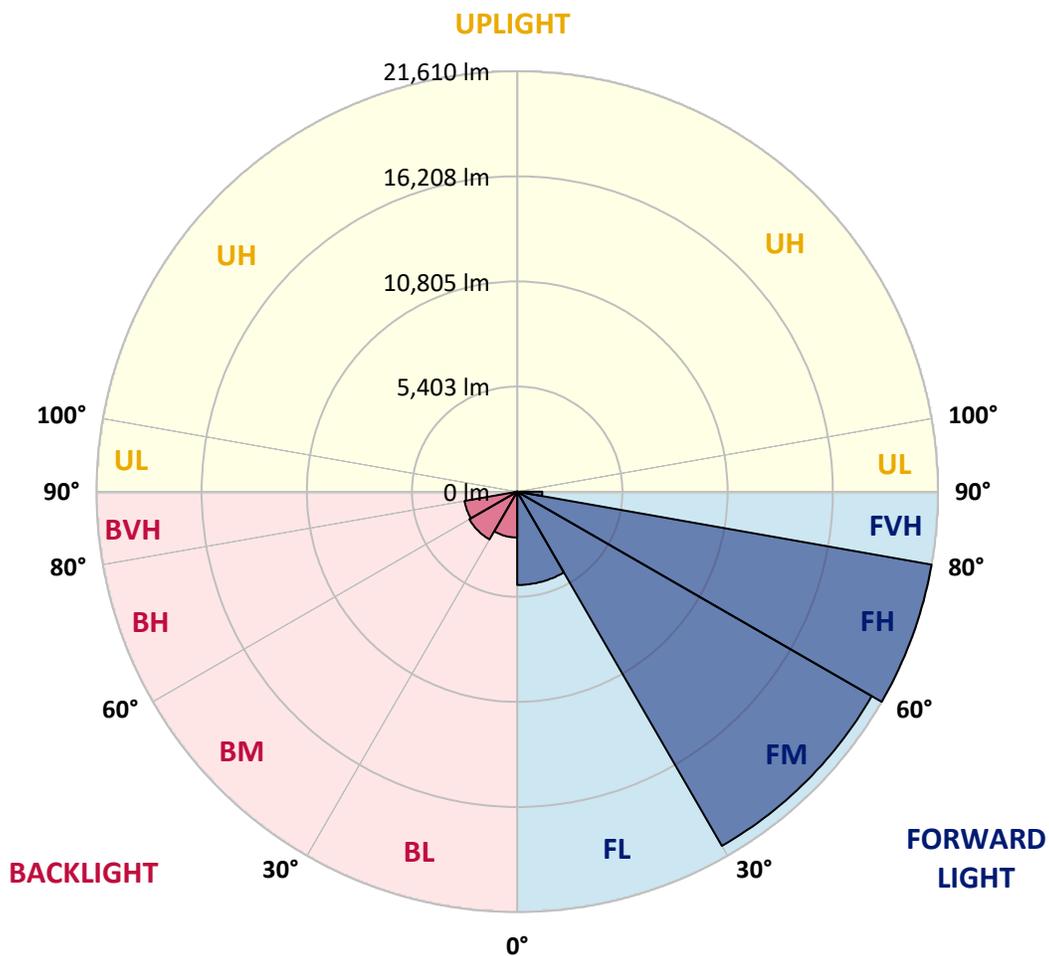
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4795.7	8.4			
FM	(30°-60°)	21022.8	37.0			
FH	(60°-80°)	21610.1	38.0			G5
FVH	(80°-90°)	1287.7	2.3			G5
BL	(0°-30°)	2357.3	4.2	B3/2500		
BM	(30°-60°)	2838.8	5.0	B3/5000		
BH	(60°-80°)	2747.1	4.8	B4/5000		G4/5000
BVH	(80°-90°)	137.2	0.2			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	14472.7	14472.7	14472.7	14472.7	14472.7	14472.7	14472.7	14472.7	14472.7	14472.7	14472.7
2.5°	14769.0	14801.9	14788.2	14780.0	14804.7	14766.2	14686.7	14662.0	14623.6	14533.0	14379.4
5°	14214.8	14313.5	14308.1	14382.1	14505.6	14538.5	14502.9	14508.3	14437.0	14324.5	14069.4
7.5°	13257.2	13298.4	13320.3	13482.2	13707.2	13888.3	14041.9	14091.3	14058.4	13962.4	13633.1
10°	12269.5	12302.5	12354.6	12543.9	12829.2	13078.9	13369.7	13537.1	13608.4	13592.0	13224.3
12.5°	11421.8	11454.7	11523.3	11737.3	12077.5	12384.8	12807.3	13015.8	13185.9	13287.4	12892.3
15°	10661.8	10733.1	10798.9	11045.9	11427.2	11830.6	12307.9	12571.3	12834.7	13062.4	12598.8
17.5°	10069.1	10140.5	10178.9	10403.9	10809.9	11303.8	11863.5	12173.5	12502.7	12875.9	12307.9
20°	9726.2	9759.1	9742.6	9868.9	10233.8	10757.8	11421.8	11781.2	12179.0	12700.3	12017.1
22.5°	9630.2	9632.9	9572.5	9558.8	9794.8	10236.5	10949.8	11386.1	11874.5	12585.1	11767.4
25°	9863.4	9855.1	9690.5	9556.1	9580.8	9838.7	10494.4	11002.0	11619.3	12560.4	11575.4
27.5°	10381.9	10406.6	10162.4	9910.0	9660.3	9652.1	10148.7	10683.7	11410.8	12672.8	11493.1
30°	11109.0	11150.1	10889.5	10568.5	10099.3	9712.5	10014.3	10494.4	11281.8	12906.1	11479.4
32.5°	11904.6	11948.5	11751.0	11413.5	10798.9	10085.6	10107.5	10510.9	11276.3	13232.5	11572.7
35°	12752.4	12801.8	12700.3	12414.9	11731.8	10774.3	10464.2	10777.0	11454.7	13731.9	11822.3
37.5°	13699.0	13775.8	13803.2	13531.6	12801.8	11682.4	11048.6	11281.8	11858.0	14426.0	12280.5
40°	15062.6	15169.6	15161.3	14771.7	14028.2	12908.8	11951.3	12011.6	12486.3	15353.4	13013.1
42.5°	17674.5	17696.4	17013.3	16165.5	15378.1	14198.3	13015.8	12966.4	13353.3	16527.7	14091.3
45°	20997.0	20906.5	19386.5	17748.6	16788.3	15679.9	14401.3	14159.9	14453.5	17959.8	15441.2
47.5°	23754.4	23545.9	21625.3	19364.6	18280.8	17290.4	16028.3	15605.8	15767.7	19584.1	17186.1
50°	24711.9	24555.5	22964.2	20709.0	19693.8	19254.8	18031.2	17433.1	17477.0	21521.1	19230.1
52.5°	24506.1	24484.2	23422.4	21595.1	21016.2	21318.0	20868.1	20058.7	19630.7	23672.1	21436.0
55°	24020.5	24067.2	23683.1	22626.8	22528.0	23309.9	24574.7	23976.6	22646.0	25842.3	23716.0
57.5°	22333.2	22453.9	23298.9	23924.5	24961.6	26124.9	27559.8	27389.7	25891.7	28188.1	26426.7
60°	17992.8	18272.6	20538.8	23672.1	27466.5	31104.6	31746.6	31351.5	29238.9	31099.1	30007.1
62.5°	12607.0	12897.8	15592.1	20494.9	27055.0	36729.0	39231.2	37527.4	34045.8	35387.4	34641.1
65°	6749.3	6889.3	8947.0	14220.3	22840.8	37889.6	50170.1	47577.4	41656.6	40674.4	38605.7
67.5°	3723.1	3799.9	4587.4	7180.1	14629.1	33365.3	57138.9	59097.9	51168.8	44194.5	37884.1
69°	3366.4	3437.8	3953.6	5437.9	9789.3	27587.2	56458.5	62135.1	55339.1	43846.0	35217.3
70°	3292.4	3358.2	3821.9	5012.6	7923.6	22739.2	54178.6	61358.6	56332.3	42597.7	32890.7
72.5°	2963.1	3034.5	3484.4	4502.3	6771.3	11336.7	42915.9	51879.4	51144.1	36934.8	24947.9
75°	2762.8	2828.7	3591.4	4409.0	6483.2	7174.6	28292.4	38235.3	37596.0	25836.8	13452.0
77.5°	1182.5	1177.0	1665.4	3731.3	6579.2	6946.9	15202.5	23886.1	21792.7	11043.1	3863.0
80°	790.2	776.4	790.2	1097.5	6033.3	6985.3	7964.8	12124.1	9158.3	2815.0	1904.1
82.5°	680.4	669.4	694.1	669.4	2120.8	7973.0	6771.3	6447.5	4354.1	1599.5	943.8
85°	458.2	439.0	598.1	600.9	1001.4	7084.1	7627.3	5446.1	3522.8	949.3	466.4
87.5°	219.5	214.0	348.4	425.3	587.1	2878.1	8557.4	5580.6	3553.0	485.6	222.2
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	14472.7	14472.7	14472.7	14472.7	14472.7	14472.7	14472.7	14472.7	14472.7	14472.7	14472.7
2.5°	14332.7	14220.3	14110.5	13978.8	13841.6	13688.0	13611.2	13534.3	13515.1	13493.2	13416.4
5°	13937.7	13778.5	13504.2	13202.4	12884.1	12574.1	12338.1	12190.0	12077.5	12019.9	11918.3
7.5°	13427.3	13194.1	12714.0	12192.7	11657.7	11169.3	10746.8	10480.7	10228.3	10110.3	9975.9
10°	12941.7	12593.3	11847.0	11078.8	10310.6	9572.5	8878.4	8387.3	7951.1	7706.9	7534.0
12.5°	12524.7	12047.3	11012.9	9973.1	8919.6	7868.7	6828.9	6011.3	5328.1	4968.7	4784.9
15°	12118.6	11542.5	10220.0	8900.4	7547.7	6118.3	4752.0	3824.6	3259.4	3034.5	2957.6
17.5°	11751.0	11012.9	9424.4	7819.4	6132.0	4403.5	3193.6	2683.3	2466.5	2392.4	2367.8
20°	11353.2	10477.9	8598.6	6689.0	4655.9	3078.4	2494.0	2269.0	2181.2	2159.2	2148.3
22.5°	10969.1	9951.2	7808.4	5479.0	3344.5	2376.0	2142.8	2049.5	2035.8	2055.0	2055.0
25°	10642.6	9479.3	6955.1	4214.2	2455.6	2000.1	1917.8	1895.9	1948.0	2019.3	2033.0
27.5°	10398.4	9092.4	6047.0	3111.3	1956.2	1739.5	1736.7	1772.4	1901.3	2038.5	2066.0
30°	10231.0	8724.8	5075.7	2244.3	1640.7	1530.9	1574.8	1651.7	1841.0	2035.8	2087.9
32.5°	10146.0	8453.1	4063.3	1736.7	1404.7	1344.4	1418.5	1511.7	1698.3	1879.4	1948.0
35°	10211.8	8252.9	3108.5	1448.6	1240.1	1193.5	1270.3	1360.8	1470.6	1547.4	1599.5
37.5°	10458.7	8173.3	2345.8	1297.7	1127.6	1083.7	1144.1	1196.2	1240.1	1262.1	1286.8
40°	10991.0	8258.3	1879.4	1220.9	1064.5	1009.7	1034.4	1053.6	1081.0	1102.9	1113.9
42.5°	11775.7	8513.5	1684.6	1190.7	1031.6	952.0	946.6	954.8	990.5	1031.6	1039.8
45°	12873.1	8963.5	1670.9	1209.9	1015.1	905.4	880.7	891.7	946.6	1009.7	1020.6
47.5°	14275.1	9649.4	1780.6	1267.6	1028.9	880.7	839.6	853.3	921.9	1006.9	1020.6
50°	15973.4	10606.9	1964.4	1352.6	1089.2	886.2	825.8	834.1	905.4	998.7	1012.4
52.5°	17979.0	11965.0	2164.7	1434.9	1152.3	921.9	836.8	817.6	883.5	965.8	982.2
55°	20209.6	13707.2	2370.5	1509.0	1185.3	965.8	858.8	795.7	842.3	910.9	924.6
57.5°	22947.8	16143.5	2727.2	1580.3	1207.2	995.9	880.7	773.7	790.2	839.6	850.5
60°	26654.4	19589.6	3355.5	1698.3	1256.6	1006.9	878.0	754.5	738.0	765.5	771.0
62.5°	31096.4	23331.9	3879.5	1846.5	1338.9	1015.1	861.5	740.8	694.1	694.1	699.6
65°	33733.0	24333.3	3588.7	1969.9	1407.5	1006.9	842.3	727.1	661.2	631.0	633.8
67.5°	31496.9	21400.3	3075.6	1994.6	1404.7	968.5	812.1	702.4	628.3	581.7	578.9
69°	28695.7	18464.7	2845.1	1928.8	1338.9	919.1	773.7	674.9	603.6	554.2	551.5
70°	26437.7	16673.1	2694.2	1857.4	1267.6	883.5	743.5	650.2	584.4	537.8	532.3
72.5°	19221.9	10925.2	2301.9	1596.8	1045.3	740.8	642.0	570.7	521.3	493.9	488.4
75°	9605.5	5210.2	1868.4	1295.0	801.1	592.6	526.8	477.4	452.7	447.2	444.5
77.5°	3155.2	2387.0	1336.2	965.8	595.4	463.7	425.3	389.6	384.1	400.6	395.1
80°	1734.0	1388.3	847.8	639.3	406.1	340.2	334.7	315.5	323.7	351.2	345.7
82.5°	883.5	721.6	524.0	384.1	274.4	244.2	266.1	255.2	266.1	290.8	288.1
85°	436.2	395.1	332.0	233.2	181.1	156.4	189.3	197.5	203.0	222.2	222.2
87.5°	252.4	233.2	175.6	109.7	90.5	82.3	109.7	107.0	126.2	137.2	134.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)