

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: P301866

Luminaire Tested: **GLNA-AF-02-LED-E1-SL4-7027-800-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301866  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24301)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-02-LED-E1-SL4-7027-800-HSS  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(2) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV  
w/Spill Control WITH HOUSESIDE SHEILD OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6303.6 lumens  
Efficiency: N/A  
Efficacy: 74.2 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G2

Input Watts (W): 85  
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

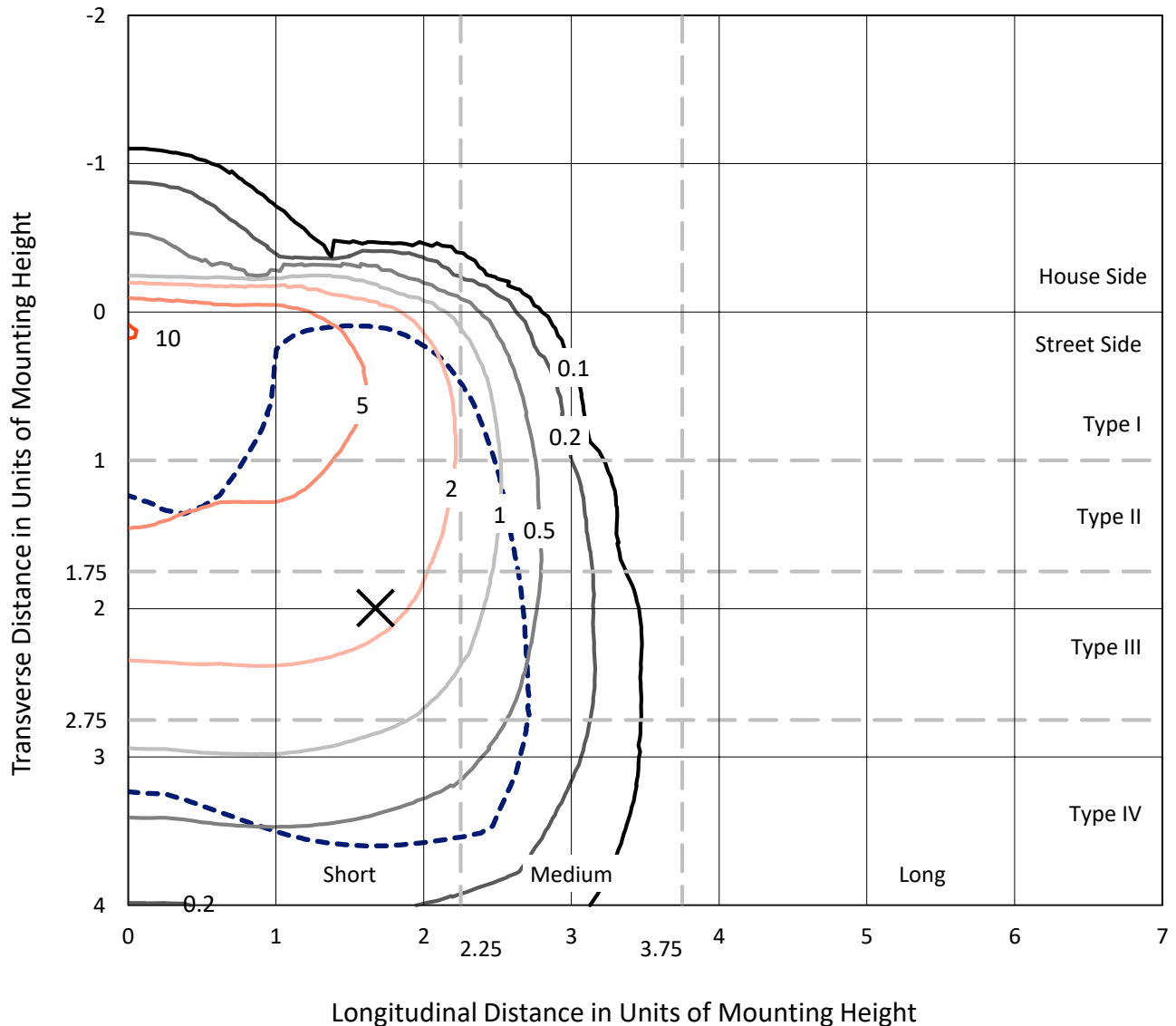


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

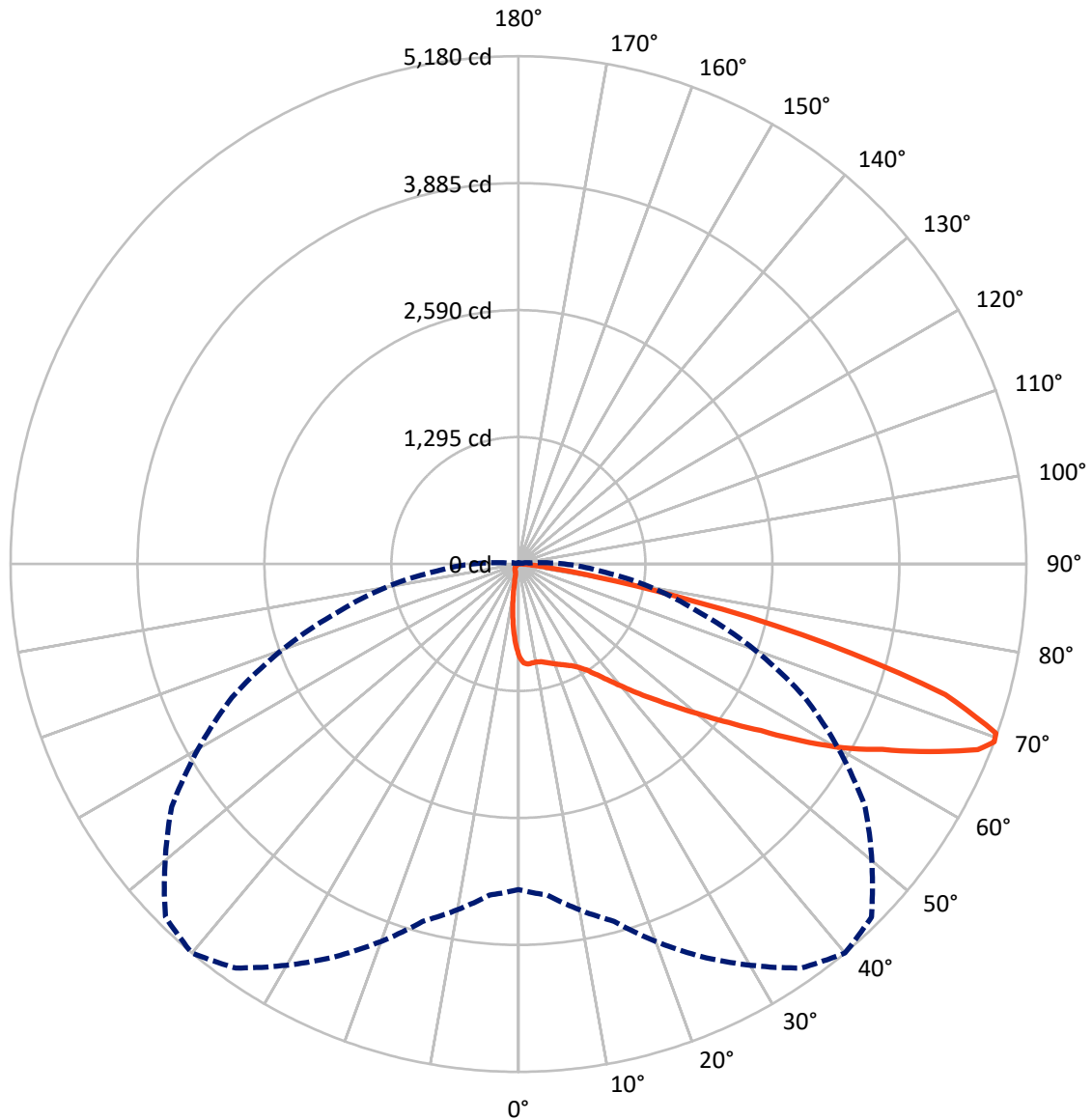


Based on 10 foot mounting height. Maximum calculated value = 10.3 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral    - - - Horizontal Cone Through 69-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	368.8	0.0	368.8
	% Fixture	5.9	0.0	5.9
<b>Street Side</b>	Lumens	5934.8	0.0	5934.8
	% Fixture	94.1	0.0	94.1
<b>Total</b>	Lumens	6303.6	0.0	6303.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	76.4	1.2
10°-20°	187.8	3.0
20°-30°	316.3	5.0
30°-40°	517.8	8.2
40°-50°	896.5	14.2
50°-60°	1412.1	22.4
60°-70°	1844.2	29.3
70°-80°	949.8	15.1
80°-90°	102.7	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°	6303.6	100.0
0°-180°	6303.6	100.0



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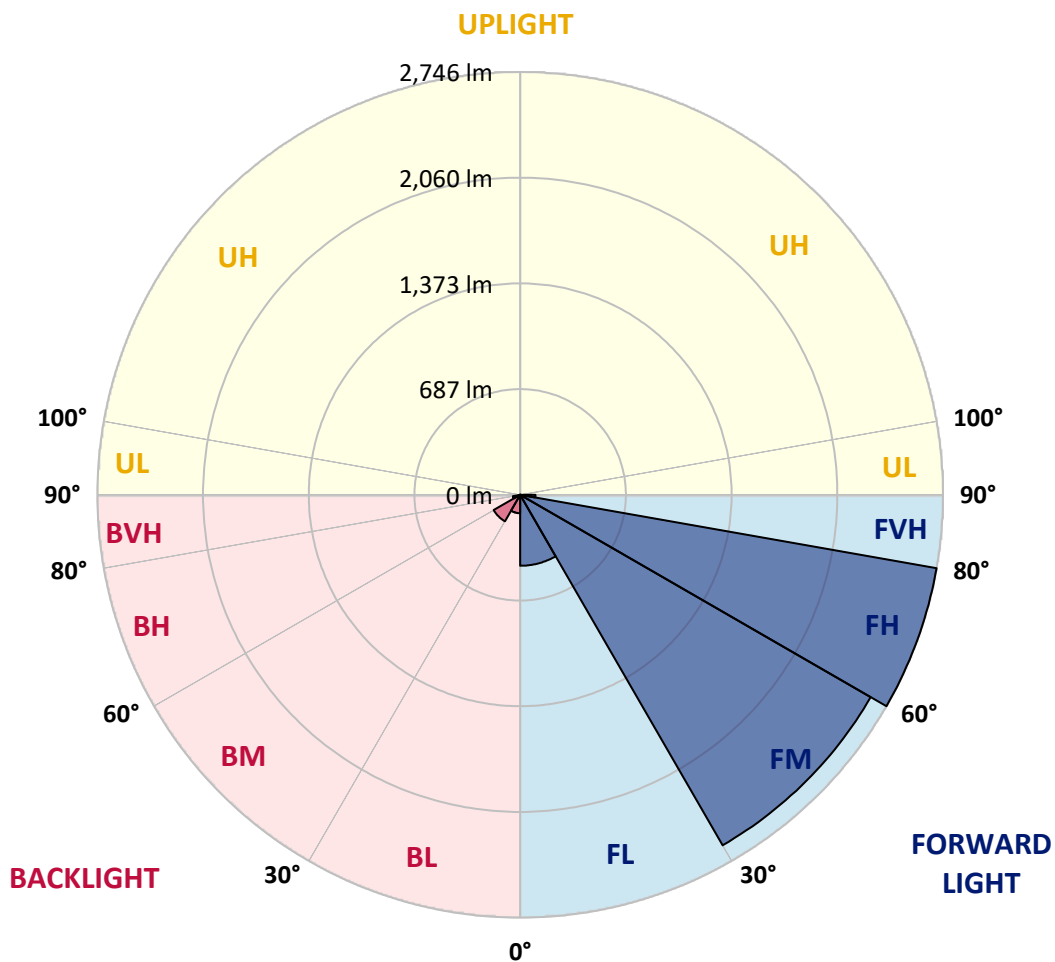
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	461.0	7.3			
FM	(30°-60°)	2628.2	41.7			
FH	(60°-80°)	2746.1	43.6			G2/5000
FVH	(80°-90°)	99.5	1.6			G1/100
BL	(0°-30°)	119.5	1.9	B1/500		
BM	(30°-60°)	198.2	3.1	B0/220		
BH	(60°-80°)	47.9	0.8	B0/110		G0/110
BVH	(80°-90°)	3.2	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	941.8	941.8	941.8	941.8	941.8	941.8	941.8	941.8	941.8	941.8	941.8
2.5°	1034.1	1028.5	1025.1	1020.6	1015.0	1010.1	1008.2	994.3	981.2	963.2	942.5
5°	1053.2	1051.4	1045.4	1039.4	1032.6	1025.1	1021.0	1004.5	985.7	959.4	923.4
7.5°	1055.1	1052.9	1045.4	1037.1	1027.7	1018.7	1011.6	995.1	977.8	951.2	907.3
10°	1052.1	1049.5	1043.9	1034.9	1023.2	1014.6	1007.5	991.7	977.1	953.1	904.3
12.5°	1048.7	1046.1	1043.5	1039.0	1028.8	1022.8	1016.8	1001.8	988.7	968.4	915.2
15°	1052.1	1050.6	1053.6	1051.7	1046.1	1040.9	1034.9	1021.3	1009.3	992.5	935.0
17.5°	1066.4	1066.4	1075.7	1076.9	1071.6	1064.1	1055.5	1042.0	1031.8	1017.6	958.7
20°	1099.8	1098.6	1110.6	1112.9	1100.1	1088.5	1075.7	1059.2	1051.4	1042.4	981.9
22.5°	1157.2	1151.9	1159.0	1156.8	1131.7	1113.6	1097.9	1077.6	1073.5	1069.4	1007.8
25°	1231.8	1228.8	1233.7	1211.6	1167.3	1142.9	1124.2	1101.3	1101.3	1105.4	1037.1
27.5°	1340.3	1329.0	1312.5	1273.5	1207.1	1175.9	1155.7	1131.3	1137.7	1153.0	1075.7
30°	1451.3	1439.0	1401.1	1341.0	1255.5	1222.8	1199.2	1173.7	1188.7	1216.8	1127.5
32.5°	1560.9	1547.0	1493.4	1417.6	1324.9	1292.2	1269.4	1241.2	1266.4	1313.6	1203.3
35°	1667.1	1654.7	1592.8	1503.5	1417.2	1390.2	1369.2	1344.8	1377.0	1443.1	1310.3
37.5°	1786.4	1772.9	1697.5	1600.7	1529.4	1509.9	1494.5	1470.1	1526.4	1623.2	1459.2
40°	1933.1	1910.2	1808.5	1712.1	1659.2	1649.8	1639.3	1635.9	1723.4	1857.3	1657.7
42.5°	2101.2	2063.7	1924.9	1829.6	1801.8	1808.5	1805.9	1820.9	1969.9	2148.5	1899.4
45°	2269.3	2220.9	2054.3	1954.9	1958.6	1982.3	1996.9	2056.9	2278.7	2482.4	2159.4
47.5°	2411.9	2364.2	2178.5	2090.3	2135.4	2181.9	2221.7	2335.4	2596.1	2811.1	2361.6
50°	2533.8	2488.8	2310.2	2239.3	2340.6	2415.7	2480.2	2648.7	2937.6	3061.4	2503.5
52.5°	2633.7	2603.6	2446.8	2410.0	2575.1	2685.1	2779.6	2981.5	3240.0	3264.8	2613.8
55°	2730.8	2709.4	2593.5	2613.0	2850.5	3000.2	3119.9	3334.6	3500.4	3434.4	2719.6
57.5°	2842.6	2823.1	2760.9	2870.4	3212.6	3401.0	3531.5	3647.5	3729.7	3607.7	2819.4
60°	2956.7	2945.5	2947.0	3156.3	3628.4	3809.2	3881.3	3911.3	3954.8	3770.9	2825.0
62.5°	3065.5	3086.9	3159.7	3474.5	4026.5	4165.3	4201.7	4231.3	4180.3	3796.8	2610.0
65°	3249.8	3284.7	3458.4	3900.4	4464.3	4612.9	4650.4	4548.8	4215.9	3462.1	2123.0
67.5°	3339.8	3403.6	3713.5	4297.4	4889.1	5054.2	5040.3	4569.4	3783.3	2640.0	1362.4
69°	3321.1	3389.0	3772.4	4418.9	5030.2	5179.9	5091.7	4316.9	3223.1	1912.5	836.4
70°	3246.8	3315.4	3742.0	4414.4	5048.2	5166.7	4996.4	4005.1	2725.2	1398.4	523.1
72.5°	2711.3	2770.6	3322.2	3990.1	4650.4	4554.0	4179.9	2774.7	1327.9	380.8	117.8
75°	1669.0	1702.0	2383.8	3005.9	3512.4	3264.8	2784.9	1380.4	395.9	107.7	65.3
77.5°	881.8	896.8	1305.0	1771.8	2226.5	1842.3	1427.3	538.4	182.4	67.5	47.3
80°	521.2	532.4	702.8	810.1	963.6	804.8	570.7	330.6	130.6	42.4	42.0
82.5°	298.3	305.4	509.5	450.3	379.7	324.2	284.0	313.3	78.4	28.5	43.5
85°	109.6	111.1	286.7	342.6	225.9	134.3	141.1	259.7	21.0	18.0	34.1
87.5°	51.0	49.9	147.5	209.7	132.1	85.2	109.9	57.0	8.3	11.6	9.4
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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	941.8	941.8	941.8	941.8	941.8	941.8	941.8	941.8	941.8	941.8	941.8
2.5°	930.5	916.7	891.5	865.6	839.4	819.1	799.2	783.5	778.2	768.4	769.2
5°	902.0	876.5	824.0	770.7	715.2	669.4	626.2	591.3	574.5	557.2	557.2
7.5°	877.3	840.1	757.9	671.3	581.6	506.2	438.3	387.2	359.1	336.6	336.2
10°	867.9	817.6	702.8	578.6	453.6	350.8	270.2	218.4	191.7	174.5	173.7
12.5°	872.0	809.7	660.4	493.0	336.2	225.5	156.5	123.1	111.8	106.6	106.6
15°	884.0	807.5	618.0	409.4	237.5	141.1	103.9	94.9	94.2	94.2	94.2
17.5°	898.6	808.2	574.5	327.9	161.7	100.9	89.7	88.6	89.3	89.3	89.3
20°	913.7	808.6	527.6	252.5	114.1	87.8	84.4	84.0	84.8	84.8	85.2
22.5°	932.0	810.5	480.7	188.7	94.2	82.9	80.3	80.3	80.7	80.7	80.3
25°	953.1	814.2	431.9	140.0	85.9	79.5	77.3	76.9	77.3	76.9	76.5
27.5°	979.3	819.5	377.5	109.6	82.2	76.2	74.3	74.3	73.9	73.5	73.2
30°	1012.3	825.5	316.3	93.1	78.4	73.2	71.3	70.9	70.5	69.8	69.8
32.5°	1062.6	838.6	255.9	84.4	74.3	69.0	67.5	67.5	66.8	66.0	65.7
35°	1139.9	864.5	201.9	79.2	69.8	64.5	62.7	62.7	61.9	61.5	61.2
37.5°	1246.8	903.9	156.8	74.3	65.3	59.7	57.8	57.4	56.7	55.9	55.5
40°	1389.1	952.7	123.4	69.8	60.8	54.8	53.3	52.5	51.0	49.9	49.9
42.5°	1567.7	1008.2	100.2	64.9	55.5	50.3	49.2	48.0	45.4	44.3	43.9
45°	1754.5	1058.1	84.8	59.3	50.3	45.8	45.0	43.2	39.8	38.6	38.6
47.5°	1889.2	1069.7	74.7	54.0	45.4	40.9	40.5	37.1	34.1	33.4	33.0
50°	1973.3	1046.9	66.4	48.8	40.9	36.4	35.3	31.1	29.3	28.5	28.1
52.5°	2029.9	1006.0	59.7	44.3	36.8	32.3	29.6	26.6	25.1	24.4	24.4
55°	2075.3	948.2	52.9	40.1	33.4	28.9	25.1	22.9	21.4	20.6	20.6
57.5°	2088.1	869.8	46.2	36.8	30.0	25.5	21.4	19.9	18.0	17.6	17.6
60°	1995.4	728.3	40.9	32.6	27.0	22.1	18.8	16.9	15.0	14.6	14.3
62.5°	1751.1	563.6	36.0	28.9	23.6	19.1	16.1	13.9	12.4	12.4	12.4
65°	1335.8	377.8	31.5	25.1	20.6	16.1	13.9	11.3	10.5	10.5	10.9
67.5°	799.6	205.6	27.0	21.4	17.6	13.5	11.6	9.8	9.4	9.8	9.8
69°	468.6	120.8	24.4	19.1	15.4	12.0	10.1	8.6	9.4	9.8	9.8
70°	289.3	81.4	22.5	17.3	13.9	10.9	9.4	8.3	9.0	9.4	9.4
72.5°	80.7	42.0	18.0	13.5	11.3	9.0	7.5	7.5	8.6	9.0	9.0
75°	52.5	31.1	13.9	10.1	8.6	7.1	6.4	7.1	8.3	8.6	8.6
77.5°	43.5	25.5	11.3	8.3	7.1	6.8	6.0	6.4	7.5	7.9	7.9
80°	39.8	18.0	9.0	7.5	6.4	6.0	5.6	5.3	6.8	7.1	7.1
82.5°	37.9	14.3	7.9	6.8	6.0	5.3	4.9	5.3	6.0	6.4	6.8
85°	23.6	9.4	7.1	6.4	5.3	4.9	4.9	4.9	5.6	6.0	6.0
87.5°	8.6	7.5	6.4	5.3	4.5	4.5	4.5	4.5	4.9	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

(END OF REPORT)