

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: P298933

Luminaire Tested: **GLNA-AF-04-LED-E1-T2-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298933
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24139)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-04-LED-E1-T2-7027-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16482.4 lumens
Efficiency: N/A
Efficacy: 96.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B3 - U0 - G3

Input Watts (W): 171
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

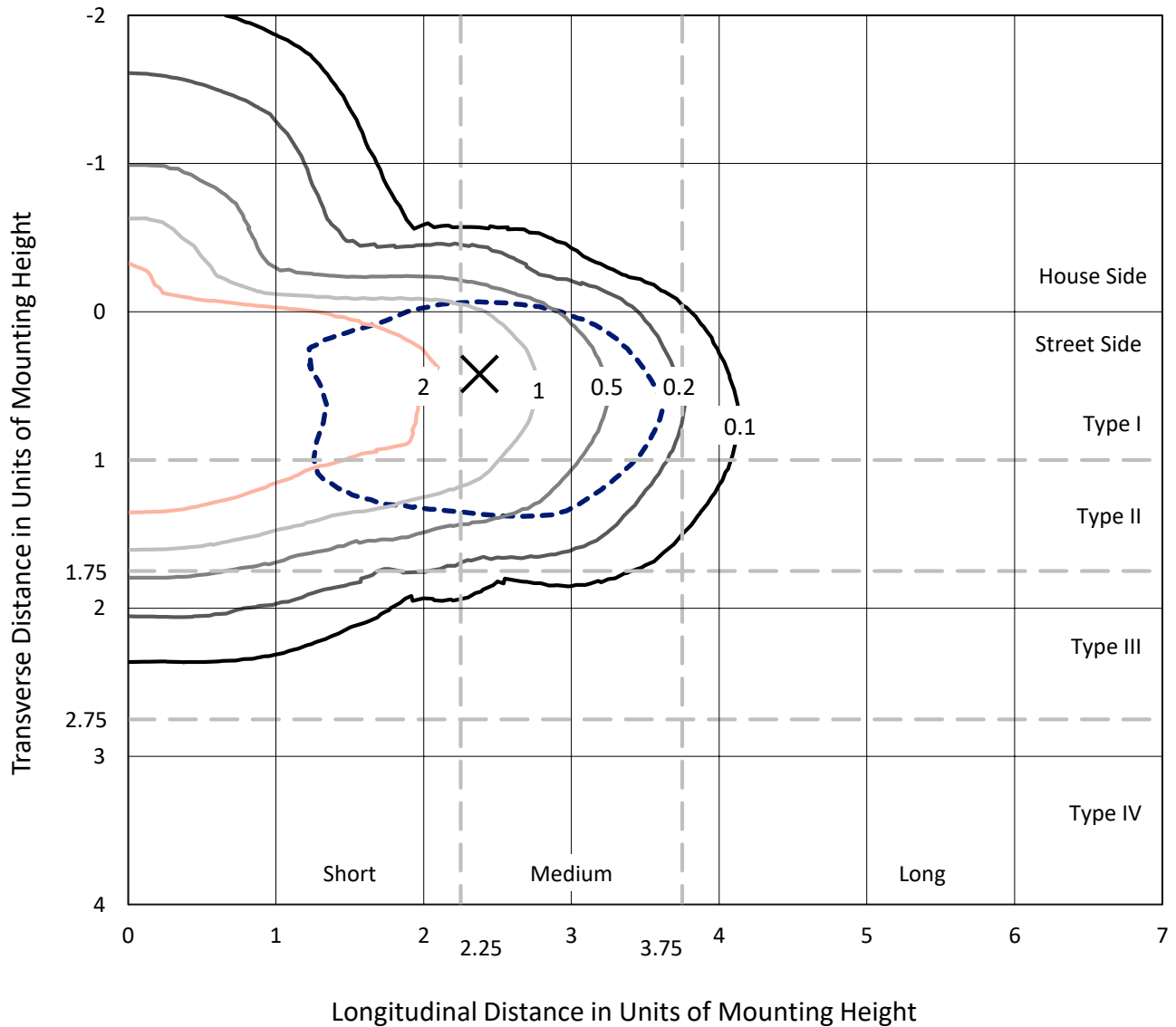


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

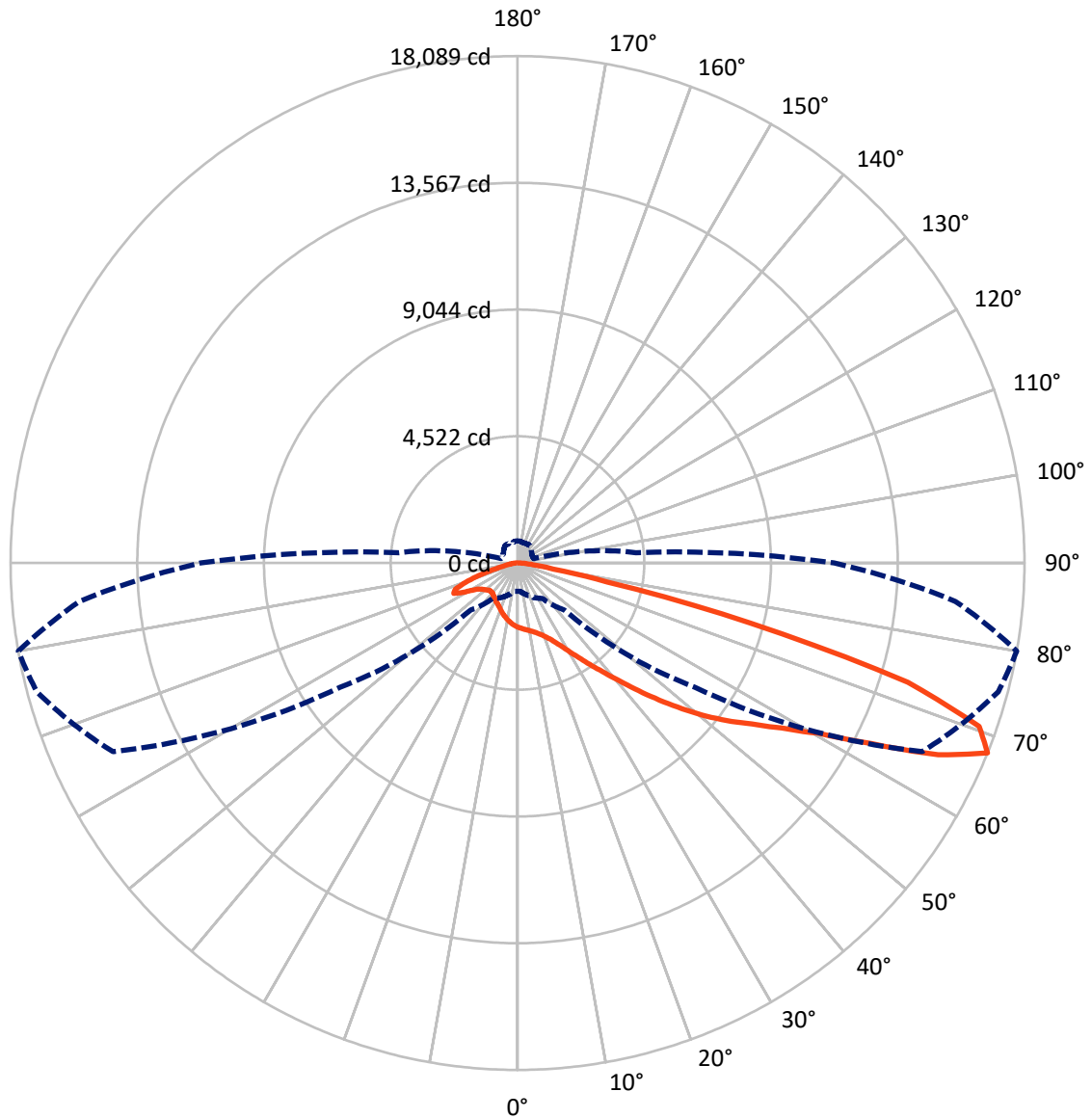


Based on 25 foot mounting height. Maximum calculated value = 4.5 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 80-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3035.4	0.0	3035.4
	% Fixture	18.4	0.0	18.4
Street Side	Lumens	13447.0	0.0	13447.0
	% Fixture	81.6	0.0	81.6
Total	Lumens	16482.4	0.0	16482.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	211.2	1.3
10°-20°	608.5	3.7
20°-30°	1007.2	6.1
30°-40°	1647.5	10.0
40°-50°	2660.1	16.1
50°-60°	3840.4	23.3
60°-70°	4238.1	25.7
70°-80°	1953.5	11.9
80°-90°	316.0	1.9
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°	16482.4	100.0
0°-180°	16482.4	100.0



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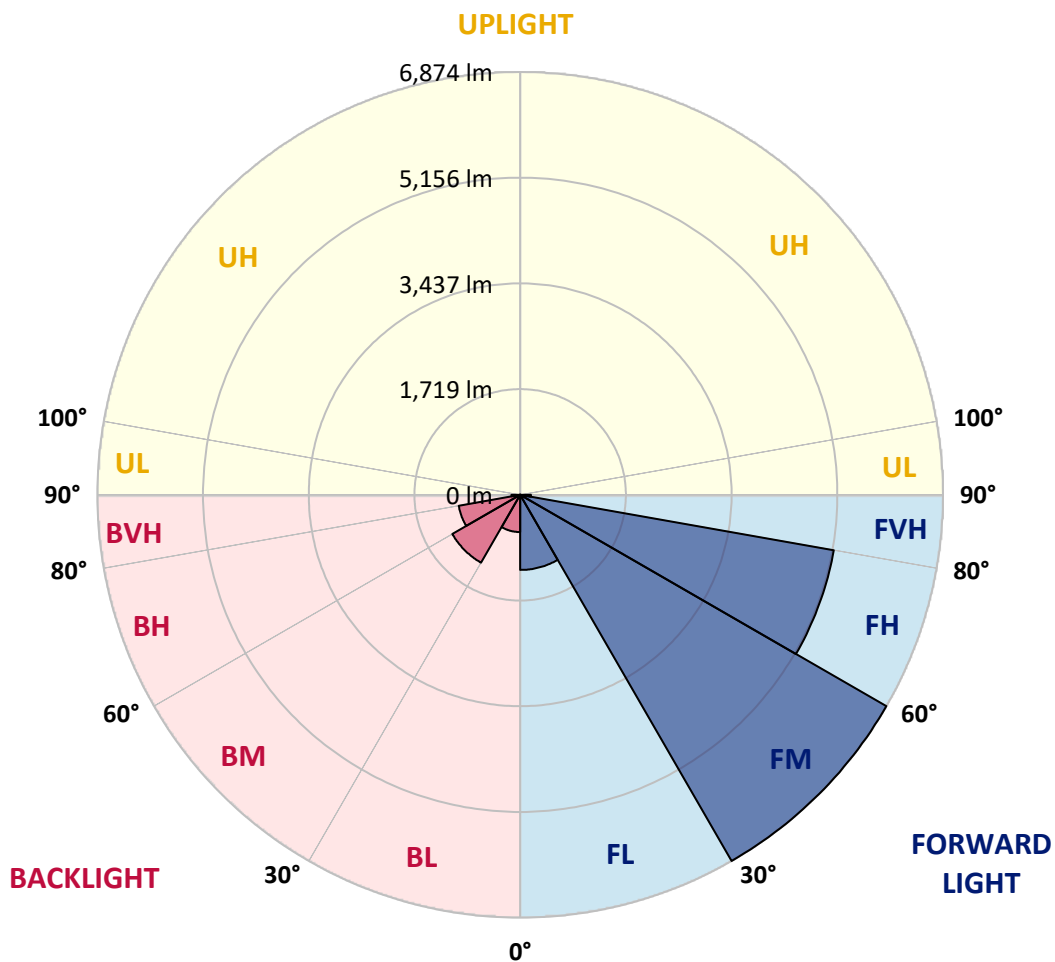
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1221.3	7.4			
FM (30°-60°)	6874.4	41.7			
FH (60°-80°)	5177.6	31.4			G3/7500
FVH (80°-90°)	173.7	1.1			G2/225
BL (0°-30°)	605.6	3.7	B2/1000		
BM (30°-60°)	1273.6	7.7	B2/2500		
BH (60°-80°)	1014.0	6.2	B3/2500		G3/2500
BVH (80°-90°)	142.2	0.9			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	80°	85°
0°	2289.9	2289.9	2289.9	2289.9	2289.9	2289.9	2289.9	2289.9	2289.9	2289.9	2289.9
2.5°	2504.9	2490.3	2492.8	2488.7	2476.5	2455.4	2432.7	2391.3	2348.3	2325.6	2307.7
5°	2714.3	2710.2	2704.5	2691.6	2660.7	2616.9	2562.5	2489.5	2410.8	2369.4	2329.7
7.5°	2870.9	2868.4	2861.1	2853.0	2823.0	2770.3	2688.3	2584.4	2470.0	2413.2	2351.6
10°	2883.9	2887.9	2893.6	2915.5	2919.6	2891.2	2807.6	2681.8	2531.7	2458.7	2380.0
12.5°	2773.5	2782.4	2804.3	2860.3	2919.6	2954.5	2911.5	2784.1	2603.9	2515.5	2415.7
15°	2627.5	2632.3	2659.1	2736.2	2842.5	2950.4	2991.0	2896.8	2697.2	2588.5	2469.2
17.5°	2565.0	2567.4	2586.1	2637.2	2736.2	2890.4	3035.6	3019.4	2811.6	2679.4	2534.9
20°	2533.3	2539.0	2565.8	2616.1	2678.6	2813.3	3042.1	3151.6	2948.0	2793.0	2617.7
22.5°	2623.4	2621.0	2630.7	2655.9	2708.6	2789.7	3037.2	3288.0	3121.6	2939.0	2725.6
25°	2833.6	2842.5	2825.4	2797.0	2814.1	2870.9	3063.2	3435.6	3339.1	3126.5	2866.8
27.5°	3133.0	3124.1	3098.9	3032.4	2997.5	3021.8	3149.2	3594.7	3609.3	3373.2	3053.5
30°	3431.6	3424.3	3399.9	3318.8	3247.4	3227.1	3316.4	3777.3	3931.4	3669.3	3282.3
32.5°	3741.6	3733.4	3710.7	3629.6	3543.6	3496.5	3554.1	3988.2	4311.2	4023.1	3551.7
35°	4123.7	4108.3	4060.5	3947.7	3863.3	3826.8	3853.5	4253.6	4749.4	4441.8	3878.7
37.5°	4483.2	4506.8	4458.1	4302.3	4192.7	4179.7	4209.8	4577.3	5221.6	4910.0	4254.4
40°	4844.3	4848.4	4804.5	4677.2	4564.4	4543.3	4618.7	4970.1	5779.1	5469.9	4711.2
42.5°	5217.6	5225.7	5151.8	5034.2	4951.4	4955.5	5041.5	5430.2	6418.5	6129.6	5237.0
45°	5659.8	5672.0	5590.8	5436.7	5361.2	5512.9	5477.2	5946.2	7119.6	6879.4	5840.8
47.5°	6122.3	6141.0	6079.3	5934.9	5840.8	6049.3	5913.0	6518.3	7874.2	7683.5	6503.7
50°	6374.7	6401.5	6461.5	6451.0	6430.7	6395.8	6399.0	7131.8	8652.4	8521.0	7185.3
52.5°	6239.2	6238.4	6457.5	6723.6	7007.6	7028.7	6991.4	7778.5	9379.5	9339.7	7827.2
55°	5619.2	5661.4	5993.3	6508.6	7284.3	7768.7	7879.1	8519.3	10093.5	10139.8	8478.8
57.5°	4587.1	4622.0	5069.9	5788.0	6911.1	8208.6	9141.7	9596.1	10892.0	11107.8	9346.2
60°	3111.1	3153.3	3628.0	4490.5	5906.5	7963.5	10343.5	11517.6	11847.9	12338.8	10563.4
62.5°	1828.2	1866.3	2253.4	2832.7	4158.6	6825.0	10870.9	14251.4	13366.1	14196.2	12419.9
65°	1258.5	1284.5	1472.8	1763.3	2389.7	4596.8	10216.9	16138.8	15702.2	16497.4	14572.7
67.5°	1012.7	1009.4	1158.7	1356.7	1538.5	2370.2	7725.7	15925.4	17756.8	18088.7	15690.0
70°	834.2	830.9	932.3	1096.3	1229.3	1334.8	4208.1	13439.1	17338.1	17472.8	14661.1
72.5°	697.8	701.1	766.0	887.7	1008.6	1005.4	1849.3	9454.1	13639.5	14571.1	11687.2
75°	589.1	590.7	633.7	719.7	818.7	809.8	1002.9	5121.8	7928.6	8576.9	6478.6
77.5°	501.5	503.1	530.7	578.6	649.2	645.9	731.9	2212.8	3307.4	3266.9	2216.0
80°	447.1	447.1	460.1	469.0	508.0	493.4	542.9	1063.0	1398.1	1291.0	884.5
82.5°	350.5	352.2	431.7	428.4	400.0	381.4	381.4	626.4	740.8	684.9	517.7
85°	197.2	196.4	278.3	335.9	352.2	268.6	266.2	350.5	403.3	355.4	250.7
87.5°	84.4	86.0	129.0	149.3	199.6	167.2	164.7	181.0	205.3	177.7	116.0
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2289.9	2289.9	2289.9	2289.9	2289.9	2289.9	2289.9	2289.9	2289.9	2289.9	2289.9
2.5°	2290.7	2269.6	2223.4	2165.7	2113.8	2079.7	2048.9	2004.3	2006.7	1975.9	1953.1
5°	2289.1	2245.3	2138.2	2010.8	1888.2	1799.8	1733.2	1673.2	1658.6	1630.2	1613.1
7.5°	2290.7	2219.3	2039.2	1835.5	1683.7	1571.8	1515.0	1483.3	1476.0	1466.3	1467.1
10°	2296.4	2195.8	1930.4	1671.6	1512.5	1438.7	1424.9	1434.6	1446.0	1449.2	1450.0
12.5°	2309.4	2174.7	1811.1	1525.5	1405.4	1382.7	1406.2	1439.5	1461.4	1472.0	1471.1
15°	2338.6	2158.4	1696.7	1411.1	1346.2	1358.4	1402.2	1449.2	1480.9	1495.5	1496.3
17.5°	2370.2	2134.9	1579.1	1323.5	1302.4	1333.2	1387.6	1442.7	1481.7	1497.9	1501.2
20°	2411.6	2105.7	1455.7	1257.7	1261.0	1295.9	1347.0	1402.2	1445.2	1459.0	1465.5
22.5°	2466.0	2074.0	1347.8	1204.2	1213.9	1240.7	1280.5	1328.3	1365.7	1372.1	1377.8
25°	2539.0	2040.0	1261.8	1155.5	1159.6	1175.0	1201.7	1230.1	1256.1	1248.8	1254.5
27.5°	2637.2	2010.8	1197.7	1110.9	1103.6	1106.8	1120.6	1129.5	1143.3	1123.0	1125.5
30°	2752.4	1979.1	1148.2	1071.9	1051.6	1045.9	1049.2	1054.1	1064.6	1037.0	1033.0
32.5°	2886.3	1941.0	1101.9	1037.8	1009.4	998.1	999.7	1012.7	1053.3	1036.2	1027.3
35°	3042.1	1898.0	1053.3	1000.5	981.0	964.8	963.2	1003.8	1124.7	1114.1	1106.0
37.5°	3224.7	1855.0	1004.6	958.3	959.9	942.1	936.4	982.7	1138.5	1097.1	1091.4
40°	3456.7	1832.2	963.2	913.7	934.0	931.5	920.2	943.7	1047.6	972.1	962.4
42.5°	3744.0	1835.5	932.3	865.8	903.1	929.1	911.2	912.1	949.4	892.6	883.7
45°	4098.6	1873.6	910.4	827.7	868.2	926.7	908.0	895.0	898.3	868.2	863.4
47.5°	4512.4	1952.3	895.0	796.0	835.0	917.7	907.2	890.2	882.8	866.6	862.6
50°	4972.5	2066.7	883.7	766.0	805.0	903.1	908.0	885.3	877.2	870.7	868.2
52.5°	5424.5	2197.4	866.6	740.0	781.4	885.3	910.4	880.4	871.5	866.6	864.2
55°	5928.4	2360.5	840.7	718.1	761.9	862.6	910.4	873.1	863.4	864.2	863.4
57.5°	6609.2	2624.2	809.8	699.5	738.4	835.0	895.0	865.0	852.8	853.6	854.4
60°	7673.0	3089.2	772.5	680.8	709.2	802.5	873.9	847.1	835.0	838.2	839.0
62.5°	9237.5	3771.6	723.8	653.2	678.4	767.6	844.7	824.4	812.3	820.4	820.4
65°	10863.6	4373.7	663.8	618.3	645.9	729.5	808.2	796.0	783.9	802.5	801.7
67.5°	11301.0	4239.0	603.7	580.2	613.5	687.3	764.4	757.9	751.4	783.9	782.2
70°	10039.2	3403.2	548.5	541.2	577.7	641.9	717.3	717.3	713.3	737.6	731.9
72.5°	7648.7	2413.2	495.8	499.8	537.2	592.4	666.2	671.9	665.4	677.6	672.7
75°	4094.5	1381.1	443.0	454.4	486.9	542.0	609.4	615.1	611.0	610.2	612.6
77.5°	1360.8	675.1	387.9	405.7	434.1	490.1	550.2	559.1	549.3	547.7	546.9
80°	606.1	424.4	327.0	350.5	375.7	430.9	487.7	495.0	484.4	499.0	480.4
82.5°	389.5	279.1	262.1	288.1	312.4	371.6	425.2	426.8	417.1	484.4	413.0
85°	189.1	172.8	197.2	220.7	241.8	292.1	352.2	353.0	328.6	299.4	288.9
87.5°	94.1	100.6	131.5	152.6	163.1	200.4	256.4	251.5	241.0	219.1	202.0
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)