

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: P299021

Luminaire Tested: **GLNA-AF-08-LED-E1-T2-7050-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299021
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-08-LED-E1-T2-7050-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(8) 70 CRI, 5000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30733.4 lumens
Efficiency: N/A
Efficacy: 119.6 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B3 - U0 - G4

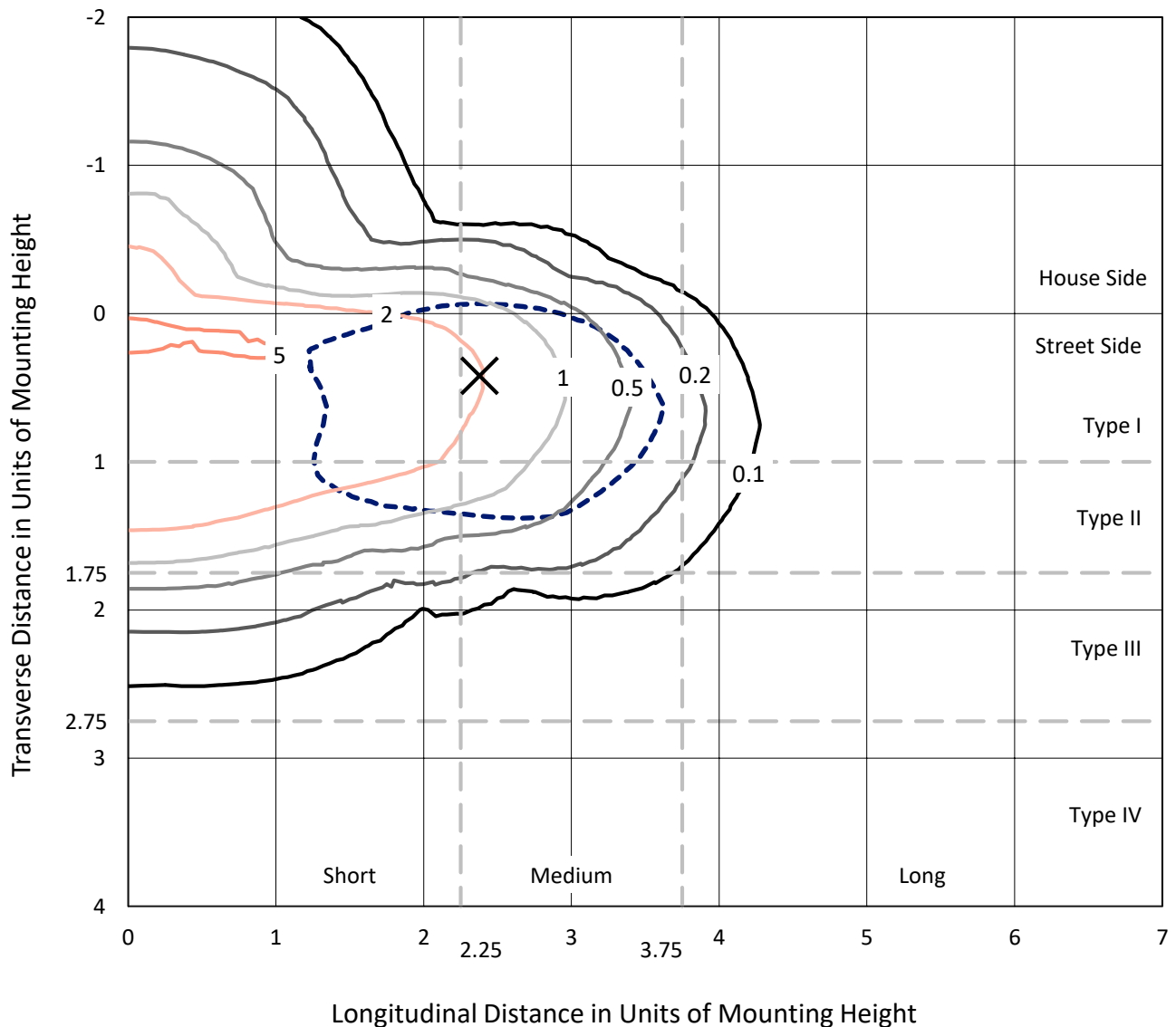
Input Watts (W): 257
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

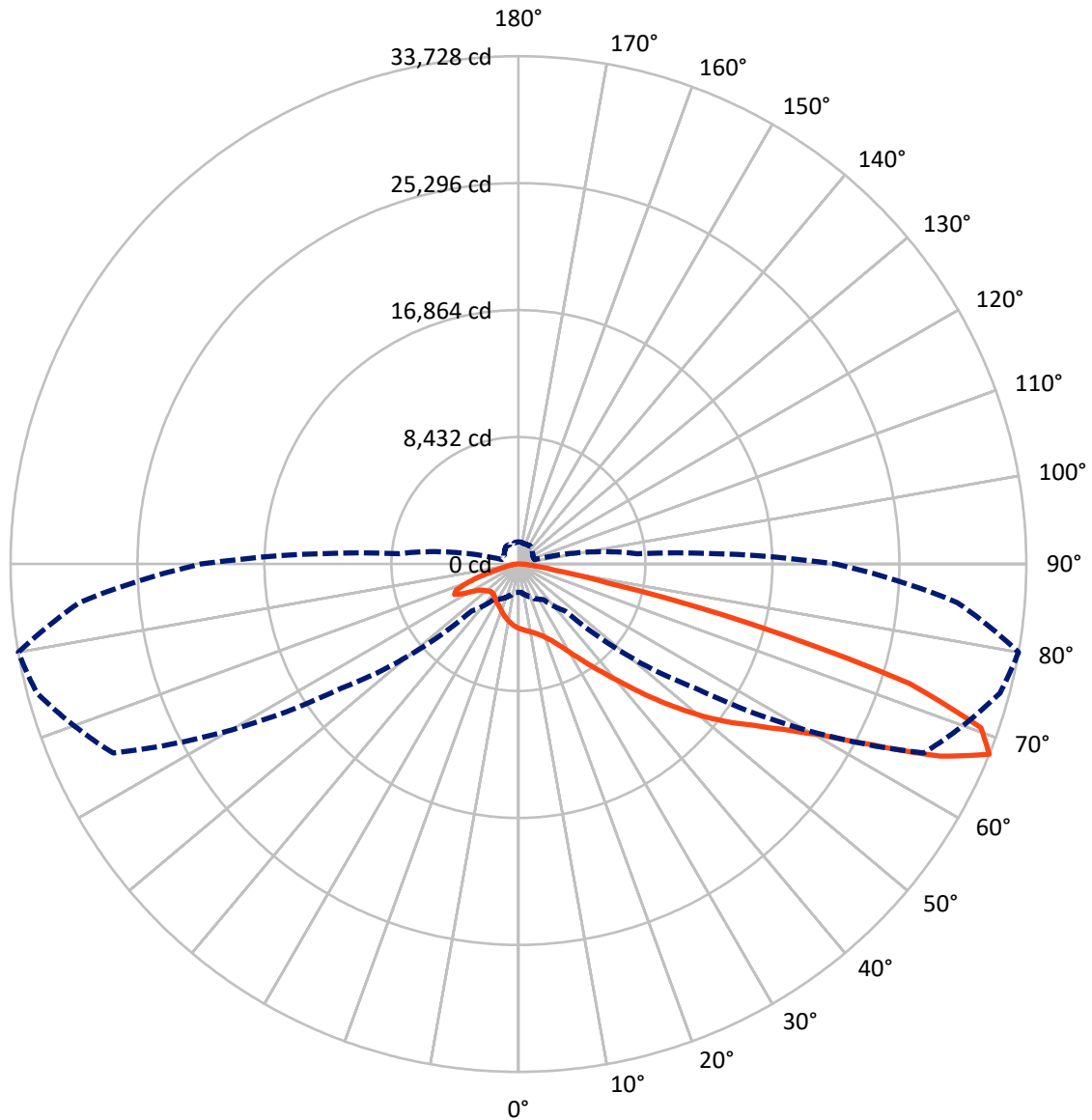
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.8 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	5659.9	0.0	5659.9
	% Fixture	18.4	0.0	18.4
Street Side	Lumens	25073.4	0.0	25073.4
	% Fixture	81.6	0.0	81.6
Total	Lumens	30733.4	0.0	30733.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	393.9	1.3
10°-20°	1134.6	3.7
20°-30°	1878.0	6.1
30°-40°	3072.0	10.0
40°-50°	4960.0	16.1
50°-60°	7160.8	23.3
60°-70°	7902.4	25.7
70°-80°	3642.5	11.9
80°-90°	589.2	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°	30733.4	100.0
0°-180°	30733.4	100.0



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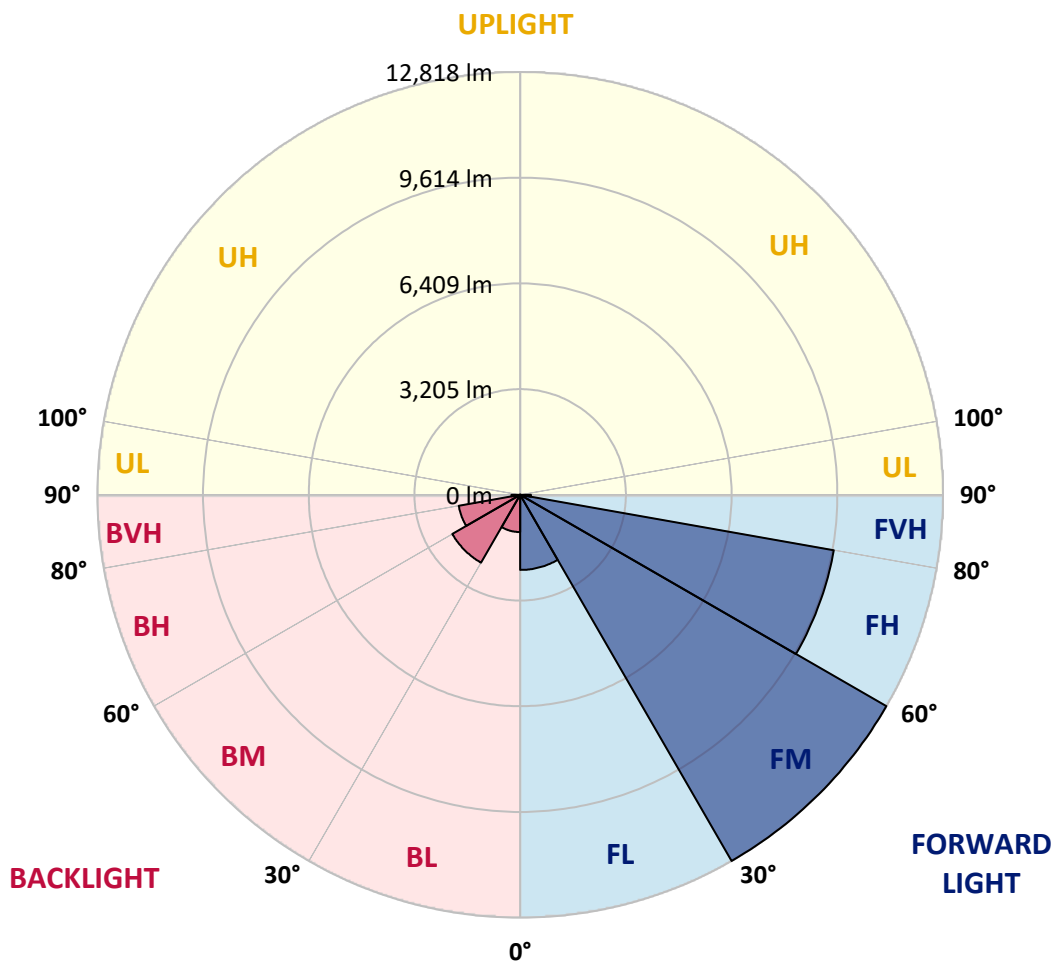
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2277.3	7.4			
FM (30°-60°)	12818.1	41.7			
FH (60°-80°)	9654.1	31.4			G4/12000
FVH (80°-90°)	323.9	1.1			G3/500
BL (0°-30°)	1129.2	3.7	B3/2500		
BM (30°-60°)	2374.7	7.7	B2/2500		
BH (60°-80°)	1890.7	6.2	B3/2500		G3/2500
BVH (80°-90°)	265.2	0.9			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	80°	85°
0°	4269.8	4269.8	4269.8	4269.8	4269.8	4269.8	4269.8	4269.8	4269.8	4269.8	4269.8
2.5°	4670.7	4643.5	4648.0	4640.4	4617.8	4578.4	4536.0	4458.9	4378.7	4336.3	4303.0
5°	5061.1	5053.5	5042.9	5018.7	4961.2	4879.5	4778.1	4642.0	4495.2	4418.0	4343.9
7.5°	5353.1	5348.5	5334.9	5319.8	5263.8	5165.5	5012.7	4819.0	4605.6	4499.7	4384.7
10°	5377.3	5384.9	5395.4	5436.3	5443.9	5390.9	5235.1	5000.5	4720.6	4584.5	4437.7
12.5°	5171.5	5188.2	5229.0	5333.4	5443.9	5508.9	5428.7	5191.2	4855.3	4690.4	4504.3
15°	4899.2	4908.3	4958.2	5101.9	5300.1	5501.4	5577.0	5401.5	5029.3	4826.5	4604.1
17.5°	4782.7	4787.2	4822.0	4917.3	5101.9	5389.4	5660.2	5630.0	5242.6	4996.0	4726.7
20°	4723.7	4734.3	4784.2	4878.0	4994.5	5245.7	5672.3	5876.6	5496.8	5207.8	4881.0
22.5°	4891.6	4887.1	4905.2	4952.1	5050.5	5201.8	5663.3	6130.8	5820.6	5480.2	5082.3
25°	5283.5	5300.1	5268.4	5215.4	5247.2	5353.1	5711.7	6406.1	6226.1	5829.7	5345.5
27.5°	5841.8	5825.1	5778.2	5654.2	5589.1	5634.5	5872.0	6702.7	6729.9	6289.6	5693.5
30°	6398.6	6385.0	6339.6	6188.3	6055.1	6017.3	6183.7	7043.1	7330.6	6841.9	6120.2
32.5°	6976.6	6961.4	6919.1	6767.8	6607.4	6519.6	6627.0	7436.5	8038.7	7501.6	6622.5
35°	7689.2	7660.4	7571.2	7360.9	7203.5	7135.4	7185.4	7931.3	8855.7	8282.3	7232.3
37.5°	8359.5	8403.3	8312.6	8022.1	7817.8	7793.6	7849.6	8535.0	9736.3	9155.3	7932.8
40°	9032.8	9040.3	8958.6	8721.1	8510.8	8471.4	8612.1	9267.3	10775.8	10199.3	8784.6
42.5°	9728.7	9743.9	9606.2	9386.8	9232.5	9240.0	9400.4	10125.2	11968.0	11429.4	9765.1
45°	10553.3	10576.0	10424.7	10137.3	9996.6	10279.5	10212.9	11087.4	13275.3	12827.4	10890.8
47.5°	11415.8	11450.6	11335.6	11066.3	10890.8	11279.6	11025.4	12154.1	14682.4	14326.8	12126.9
50°	11886.3	11936.3	12048.2	12028.5	11990.7	11925.7	11931.7	13298.0	16133.4	15888.3	13397.8
52.5°	11633.6	11632.1	12040.7	12536.9	13066.5	13105.8	13036.2	14503.9	17489.1	17414.9	14594.6
55°	10477.7	10556.4	11175.2	12136.0	13582.4	14485.7	14691.5	15885.2	18820.5	18906.8	15809.6
57.5°	8553.1	8618.2	9453.4	10792.4	12886.4	15305.8	17045.7	17893.0	20309.3	20711.8	17427.0
60°	5800.9	5879.6	6764.7	8373.1	11013.3	14848.8	19286.5	21475.9	22091.7	23007.1	19696.6
62.5°	3408.8	3480.0	4201.7	5282.0	7754.3	12726.1	20270.0	26573.3	24922.5	26470.4	23158.4
65°	2346.7	2395.1	2746.1	3287.8	4455.9	8571.3	19050.5	30092.5	29278.5	30761.3	27172.4
67.5°	1888.3	1882.2	2160.6	2529.8	2868.7	4419.5	14405.5	29694.6	33109.5	33728.3	29255.8
70°	1555.4	1549.3	1738.5	2044.1	2292.2	2488.9	7846.5	25058.7	32328.8	32580.0	27337.3
72.5°	1301.2	1307.3	1428.3	1655.2	1880.7	1874.6	3448.2	17628.3	25432.4	27169.4	21792.1
75°	1098.5	1101.5	1181.7	1342.1	1526.6	1510.0	1870.1	9550.2	14783.8	15992.7	12080.0
77.5°	935.0	938.1	989.5	1078.8	1210.4	1204.4	1364.7	4126.0	6167.1	6091.4	4132.1
80°	833.7	833.7	857.9	874.5	947.2	919.9	1012.2	1982.1	2606.9	2407.2	1649.2
82.5°	653.6	656.7	804.9	798.9	745.9	711.1	711.1	1168.1	1381.4	1277.0	965.3
85°	367.7	366.2	519.0	626.4	656.7	500.8	496.3	653.6	752.0	662.7	467.5
87.5°	157.4	160.4	240.6	278.4	372.2	311.7	307.1	337.4	382.8	331.4	216.4
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°	4269.8	4269.8	4269.8	4269.8	4269.8	4269.8	4269.8	4269.8	4269.8	4269.8	4269.8
2.5°	4271.3	4231.9	4145.7	4038.3	3941.4	3877.9	3820.4	3737.2	3741.7	3684.2	3641.9
5°	4268.2	4186.5	3986.8	3749.3	3520.8	3355.9	3231.8	3119.9	3092.6	3039.7	3007.9
7.5°	4271.3	4138.1	3802.2	3422.5	3139.5	2930.7	2824.8	2765.8	2752.2	2734.0	2735.5
10°	4281.9	4094.2	3599.5	3116.8	2820.3	2682.6	2656.9	2675.0	2696.2	2702.3	2703.8
12.5°	4306.1	4054.9	3377.1	2844.5	2620.6	2578.2	2622.1	2684.1	2725.0	2744.6	2743.1
15°	4360.5	4024.6	3163.7	2631.2	2510.1	2532.8	2614.5	2702.3	2761.3	2788.5	2790.0
17.5°	4419.5	3980.8	2944.3	2467.7	2428.4	2485.9	2587.3	2690.2	2762.8	2793.0	2799.1
20°	4496.7	3926.3	2714.4	2345.2	2351.2	2416.3	2511.6	2614.5	2694.7	2720.4	2732.5
22.5°	4598.1	3867.3	2513.1	2245.3	2263.5	2313.4	2387.6	2476.8	2546.4	2558.5	2569.1
25°	4734.3	3803.7	2352.8	2154.5	2162.1	2190.9	2240.8	2293.7	2342.2	2328.5	2339.1
27.5°	4917.3	3749.3	2233.2	2071.3	2057.7	2063.8	2089.5	2106.1	2131.9	2094.0	2098.6
30°	5132.2	3690.3	2140.9	1998.7	1960.9	1950.3	1956.3	1965.4	1985.1	1933.6	1926.1
32.5°	5381.8	3619.2	2054.7	1935.2	1882.2	1861.0	1864.0	1888.3	1963.9	1932.1	1915.5
35°	5672.3	3539.0	1963.9	1865.6	1829.2	1799.0	1796.0	1871.6	2097.1	2077.4	2062.3
37.5°	6012.8	3458.8	1873.1	1786.9	1789.9	1756.6	1746.0	1832.3	2122.8	2045.6	2035.0
40°	6445.5	3416.4	1796.0	1703.7	1741.5	1737.0	1715.8	1759.6	1953.3	1812.6	1794.4
42.5°	6981.1	3422.5	1738.5	1614.4	1684.0	1732.4	1699.1	1700.6	1770.2	1664.3	1647.7
45°	7642.3	3493.6	1697.6	1543.3	1618.9	1727.9	1693.1	1668.9	1674.9	1618.9	1609.9
47.5°	8413.9	3640.3	1668.9	1484.3	1556.9	1711.2	1691.6	1659.8	1646.2	1615.9	1608.3
50°	9271.8	3853.7	1647.7	1428.3	1500.9	1684.0	1693.1	1650.7	1635.6	1623.5	1618.9
52.5°	10114.6	4097.3	1615.9	1379.9	1457.0	1650.7	1697.6	1641.6	1625.0	1615.9	1611.4
55°	11054.2	4401.4	1567.5	1339.0	1420.7	1608.3	1697.6	1628.0	1609.9	1611.4	1609.9
57.5°	12323.6	4893.1	1510.0	1304.2	1376.9	1556.9	1668.9	1612.9	1590.2	1591.7	1593.2
60°	14307.2	5760.1	1440.4	1269.4	1322.4	1496.4	1629.5	1579.6	1556.9	1563.0	1564.5
62.5°	17224.3	7032.5	1349.6	1218.0	1264.9	1431.3	1575.1	1537.2	1514.5	1529.7	1529.7
65°	20256.4	8155.2	1237.7	1152.9	1204.4	1360.2	1507.0	1484.3	1461.6	1496.4	1494.9
67.5°	21071.9	7904.0	1125.7	1081.8	1143.8	1281.5	1425.3	1413.2	1401.1	1461.6	1458.6
70°	18719.1	6345.6	1022.8	1009.2	1077.3	1196.8	1337.5	1337.5	1329.9	1375.3	1364.7
72.5°	14261.8	4499.7	924.5	932.0	1001.6	1104.5	1242.2	1252.8	1240.7	1263.4	1254.3
75°	7634.7	2575.2	826.1	847.3	907.8	1010.7	1136.3	1146.9	1139.3	1137.8	1142.3
77.5°	2537.3	1258.8	723.2	756.5	809.5	913.9	1025.8	1042.5	1024.3	1021.3	1019.8
80°	1130.2	791.3	609.7	653.6	700.5	803.4	909.3	922.9	903.3	930.5	895.7
82.5°	726.3	520.5	488.7	537.1	582.5	693.0	792.8	795.9	777.7	903.3	770.1
85°	352.5	322.3	367.7	411.5	450.9	544.7	656.7	658.2	612.8	558.3	538.6
87.5°	175.5	187.6	245.1	284.4	304.1	373.7	478.1	469.0	449.4	408.5	376.7
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)