

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: P299026

Luminaire Tested: **GLNA-AF-09-LED-E1-T2-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299026
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-09-LED-E1-T2-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 34283 lumens
Efficiency: N/A
Efficacy: 118.2 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 290
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

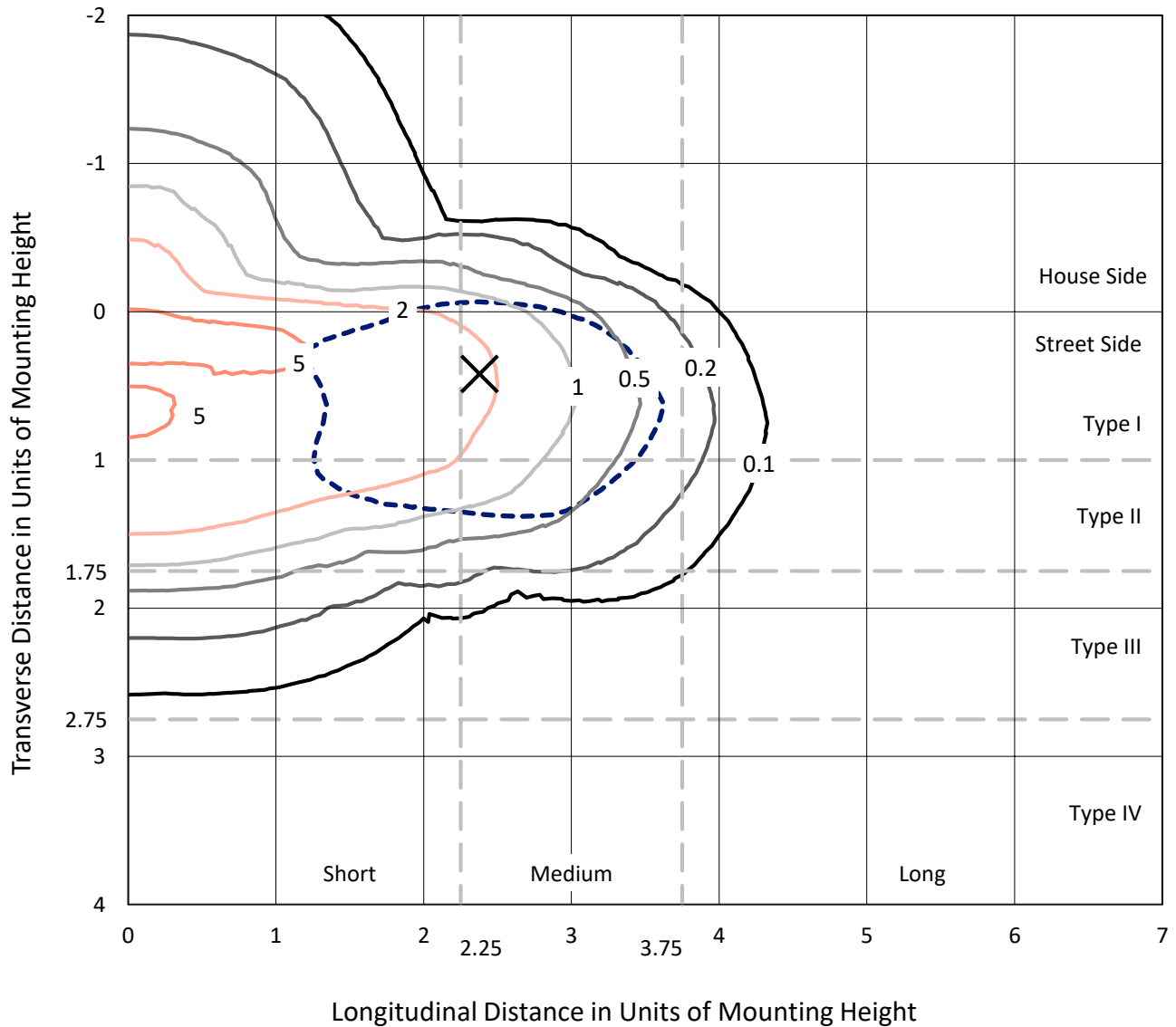


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

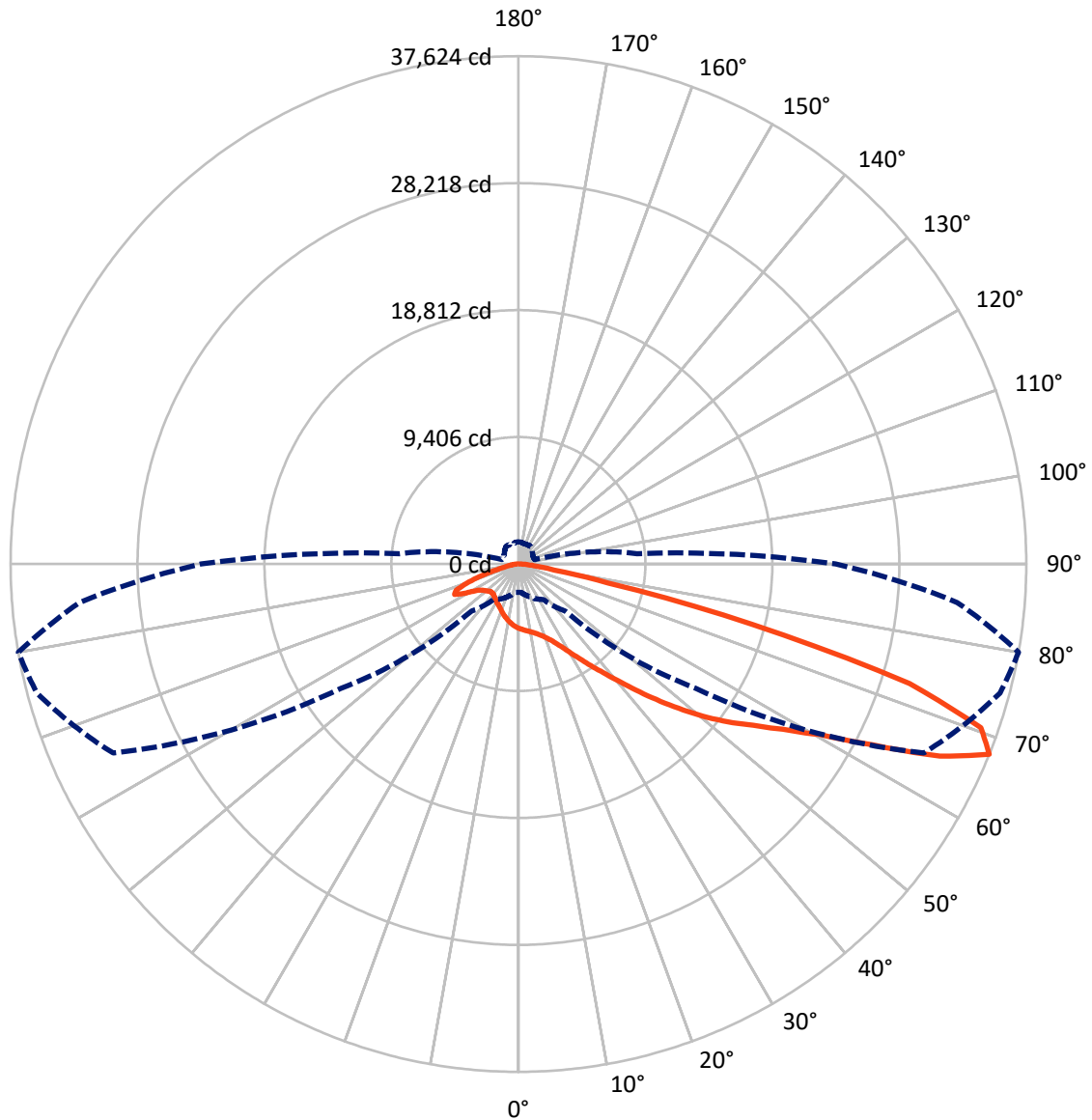


Based on 30 foot mounting height. Maximum calculated value = 6.4 fc
 Type II - Medium - Full Cutoff

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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	6313.6	0.0	6313.6
	% Fixture	18.4	0.0	18.4
Street Side	Lumens	27969.4	0.0	27969.4
	% Fixture	81.6	0.0	81.6
Total	Lumens	34283.0	0.0	34283.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	439.4	1.3
10°-20°	1265.7	3.7
20°-30°	2094.9	6.1
30°-40°	3426.8	10.0
40°-50°	5532.9	16.1
50°-60°	7987.9	23.3
60°-70°	8815.1	25.7
70°-80°	4063.2	11.9
80°-90°	657.2	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°	34283.0	100.0
0°-180°	34283.0	100.0



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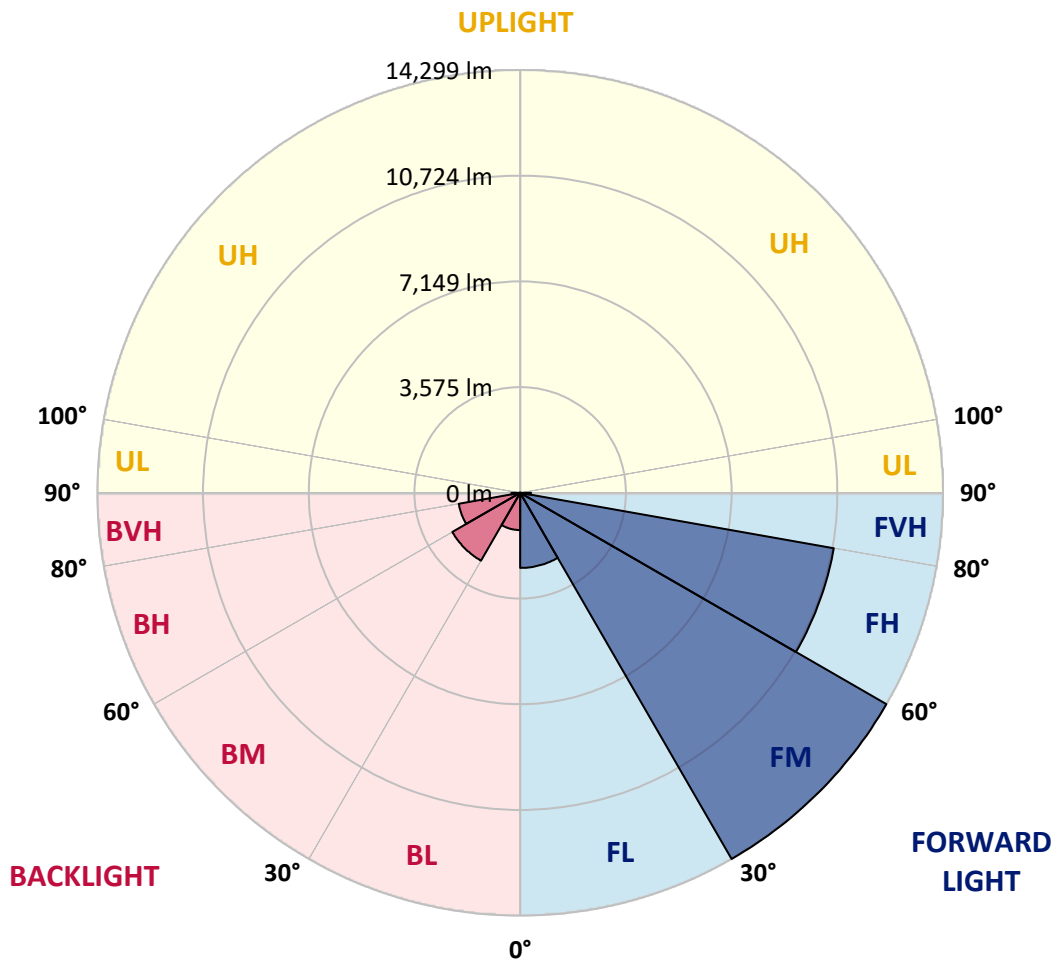
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2540.3	7.4			
FM	(30°-60°)	14298.6	41.7			
FH	(60°-80°)	10769.2	31.4			G4/12000
FVH	(80°-90°)	361.3	1.1			G3/500
BL	(0°-30°)	1259.7	3.7	B3/2500		
BM	(30°-60°)	2649.0	7.7	B3/5000		
BH	(60°-80°)	2109.1	6.2	B3/2500		G3/2500
BVH	(80°-90°)	295.9	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°	4762.9	4762.9	4762.9	4762.9	4762.9	4762.9	4762.9	4762.9	4762.9	4762.9	4762.9
2.5°	5210.2	5179.8	5184.9	5176.4	5151.1	5107.2	5060.0	4973.9	4884.4	4837.2	4800.0
5°	5645.6	5637.2	5625.4	5598.4	5534.2	5443.1	5330.0	5178.1	5014.4	4928.3	4845.6
7.5°	5971.4	5966.3	5951.1	5934.2	5871.8	5762.1	5591.6	5375.6	5137.6	5019.5	4891.2
10°	5998.4	6006.8	6018.6	6064.2	6072.6	6013.6	5839.7	5578.1	5265.9	5114.0	4950.3
12.5°	5768.8	5787.4	5833.0	5949.4	6072.6	6145.2	6055.7	5790.8	5416.1	5232.1	5024.5
15°	5465.0	5475.2	5530.9	5691.2	5912.3	6136.8	6221.2	6025.4	5610.2	5384.0	5135.9
17.5°	5335.1	5340.1	5379.0	5485.3	5691.2	6011.9	6314.0	6280.2	5848.2	5573.0	5272.6
20°	5269.2	5281.1	5336.8	5441.4	5571.4	5851.5	6327.5	6555.3	6131.7	5809.3	5444.8
22.5°	5456.6	5451.5	5471.8	5524.1	5633.8	5802.6	6317.4	6838.9	6492.9	6113.1	5669.2
25°	5893.7	5912.3	5876.8	5817.8	5853.2	5971.4	6371.4	7146.1	6945.2	6503.0	5962.9
27.5°	6516.5	6497.9	6445.6	6307.2	6234.7	6285.3	6550.3	7476.9	7507.2	7016.1	6351.1
30°	7137.6	7122.4	7071.8	6903.0	6754.5	6712.3	6898.0	7856.6	8177.3	7632.1	6827.1
32.5°	7782.3	7765.5	7718.2	7549.4	7370.5	7272.6	7392.5	8295.4	8967.2	8368.0	7387.4
35°	8577.3	8545.2	8445.6	8211.0	8035.5	7959.6	8015.3	8847.3	9878.6	9238.9	8067.6
37.5°	9325.0	9373.9	9272.7	8948.6	8720.8	8693.7	8756.2	9520.8	10860.9	10212.7	8849.0
40°	10076.0	10084.5	9993.3	9728.4	9493.8	9449.9	9606.8	10337.6	12020.4	11377.3	9799.2
42.5°	10852.4	10869.3	10715.7	10471.0	10298.8	10307.3	10486.2	11294.6	13350.3	12749.5	10892.9
45°	11772.3	11797.6	11628.8	11308.1	11151.2	11466.8	11392.5	12368.0	14808.6	14309.0	12148.6
47.5°	12734.3	12773.1	12644.8	12344.4	12148.6	12582.4	12298.8	13557.9	16378.2	15981.6	13527.5
50°	13259.2	13314.9	13439.8	13417.8	13375.6	13303.1	13309.8	14833.9	17996.8	17723.4	14945.3
52.5°	12977.3	12975.6	13431.3	13984.9	14575.7	14619.5	14541.9	16179.0	19509.0	19426.3	16280.3
55°	11687.9	11775.6	12465.9	13537.7	15151.2	16158.8	16388.3	17720.0	20994.3	21090.5	17635.6
57.5°	9541.0	9613.6	10545.2	12038.9	14374.8	17073.6	19014.5	19959.7	22655.1	23104.0	19439.8
60°	6470.9	6558.7	7546.1	9340.2	12285.3	16563.9	21514.1	23956.3	24643.3	25664.4	21971.5
62.5°	3802.6	3881.9	4687.0	5892.0	8649.9	14195.9	22611.2	29642.5	27801.1	29527.7	25833.1
65°	2617.7	2671.8	3063.3	3667.5	4970.5	9561.3	21250.8	33568.2	32660.2	34314.2	30310.8
67.5°	2106.3	2099.6	2410.1	2822.0	3200.0	4930.0	16069.3	33124.3	36933.7	37624.0	32634.9
70°	1735.0	1728.3	1939.3	2280.2	2557.0	2776.4	8752.8	27953.0	36062.8	36342.9	30494.8
72.5°	1451.5	1458.2	1593.3	1846.4	2097.9	2091.2	3846.4	19664.3	28369.9	30307.4	24309.1
75°	1225.3	1228.7	1318.2	1497.1	1703.0	1684.4	2086.1	10653.3	16491.3	17839.8	13475.2
77.5°	1043.0	1046.4	1103.8	1203.4	1350.2	1343.5	1522.4	4602.6	6879.4	6795.0	4609.3
80°	930.0	930.0	957.0	975.5	1056.5	1026.2	1129.1	2211.0	2908.0	2685.3	1839.7
82.5°	729.1	732.5	897.9	891.1	832.1	793.3	793.3	1303.0	1540.9	1424.5	1076.8
85°	410.1	408.4	578.9	698.7	732.5	558.7	553.6	729.1	838.8	739.2	521.5
87.5°	175.5	178.9	268.4	310.6	415.2	347.7	342.6	376.4	427.0	369.6	241.4
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°	4762.9	4762.9	4762.9	4762.9	4762.9	4762.9	4762.9	4762.9	4762.9	4762.9	4762.9
2.5°	4764.6	4720.7	4624.5	4504.7	4396.7	4325.8	4261.6	4168.8	4173.9	4109.7	4062.5
5°	4761.2	4670.1	4447.3	4182.3	3927.5	3743.5	3605.1	3480.2	3449.8	3390.7	3355.3
7.5°	4764.6	4616.1	4241.4	3817.8	3502.1	3269.2	3151.1	3085.3	3070.1	3049.8	3051.5
10°	4776.4	4567.1	4015.2	3476.8	3146.0	2992.4	2963.7	2984.0	3007.6	3014.4	3016.1
12.5°	4803.4	4523.2	3767.1	3173.0	2923.2	2876.0	2924.9	2994.1	3039.7	3061.6	3059.9
15°	4864.2	4489.5	3529.1	2935.0	2800.0	2825.3	2916.5	3014.4	3080.2	3110.6	3112.3
17.5°	4930.0	4440.5	3284.4	2752.8	2708.9	2773.0	2886.1	3000.9	3081.9	3115.6	3122.4
20°	5016.1	4379.8	3027.9	2616.1	2622.8	2695.4	2801.7	2916.5	3005.9	3034.6	3048.1
22.5°	5129.2	4314.0	2803.4	2504.7	2524.9	2580.6	2663.3	2762.9	2840.5	2854.0	2865.8
25°	5281.1	4243.1	2624.5	2403.4	2411.8	2443.9	2499.6	2558.7	2612.7	2597.5	2609.3
27.5°	5485.3	4182.3	2491.2	2310.6	2295.4	2302.1	2330.8	2349.4	2378.1	2335.9	2340.9
30°	5724.9	4116.5	2388.2	2229.6	2187.4	2175.5	2182.3	2192.4	2214.4	2157.0	2148.5
32.5°	6003.4	4037.2	2292.0	2158.7	2099.6	2076.0	2079.3	2106.3	2190.7	2155.3	2136.7
35°	6327.5	3947.7	2190.7	2081.0	2040.5	2006.8	2003.4	2087.8	2339.3	2317.3	2300.4
37.5°	6707.2	3858.3	2089.5	1993.3	1996.6	1959.5	1947.7	2043.9	2368.0	2281.9	2270.1
40°	7189.9	3811.0	2003.4	1900.4	1942.6	1937.6	1913.9	1962.9	2178.9	2022.0	2001.7
42.5°	7787.4	3817.8	1939.3	1800.9	1878.5	1932.5	1895.4	1897.1	1974.7	1856.6	1838.0
45°	8525.0	3897.1	1893.7	1721.5	1805.9	1927.4	1888.6	1861.6	1868.4	1805.9	1795.8
47.5°	9385.7	4060.8	1861.6	1655.7	1736.7	1908.9	1886.9	1851.5	1836.3	1802.5	1794.1
50°	10342.7	4298.8	1838.0	1593.3	1674.3	1878.5	1888.6	1841.4	1824.5	1811.0	1805.9
52.5°	11282.8	4570.5	1802.5	1539.3	1625.3	1841.4	1893.7	1831.2	1812.7	1802.5	1797.5
55°	12330.9	4909.7	1748.5	1493.7	1584.8	1794.1	1893.7	1816.0	1795.8	1797.5	1795.8
57.5°	13747.0	5458.3	1684.4	1454.9	1535.9	1736.7	1861.6	1799.2	1773.9	1775.5	1777.2
60°	15959.6	6425.4	1606.8	1416.0	1475.1	1669.2	1817.7	1762.0	1736.7	1743.5	1745.2
62.5°	19213.7	7844.8	1505.5	1358.7	1411.0	1596.6	1757.0	1714.8	1689.5	1706.3	1706.3
65°	22596.0	9097.1	1380.6	1286.1	1343.5	1517.3	1681.0	1655.7	1630.4	1669.2	1667.5
67.5°	23505.7	8817.0	1255.7	1206.8	1276.0	1429.5	1589.9	1576.4	1562.9	1630.4	1627.0
70°	20881.2	7078.5	1140.9	1125.7	1201.7	1335.0	1492.0	1492.0	1483.6	1534.2	1522.4
72.5°	15909.0	5019.5	1031.2	1039.7	1117.3	1232.1	1385.7	1397.5	1384.0	1409.3	1399.2
75°	8516.5	2872.6	921.5	945.2	1012.7	1127.4	1267.5	1279.3	1270.9	1269.2	1274.3
77.5°	2830.4	1404.2	806.8	843.9	903.0	1019.4	1144.3	1162.9	1142.6	1139.3	1137.6
80°	1260.8	882.7	680.2	729.1	781.4	896.2	1014.4	1029.5	1007.6	1038.0	999.2
82.5°	810.1	580.6	545.2	599.2	649.8	773.0	884.4	887.8	867.5	1007.6	859.1
85°	393.3	359.5	410.1	459.1	503.0	607.6	732.5	734.2	683.6	622.8	600.8
87.5°	195.8	209.3	273.4	317.3	339.2	416.9	533.3	523.2	501.3	455.7	420.3
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)