

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: P299134

Luminaire Tested: **GLNA-AF-07-LED-E1-T3**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299134
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24140)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-07-LED-E1-T3
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 41966.9 lumens
Efficiency: N/A
Efficacy: 107.3 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B4 - U0 - G5

Input Watts (W): 391
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

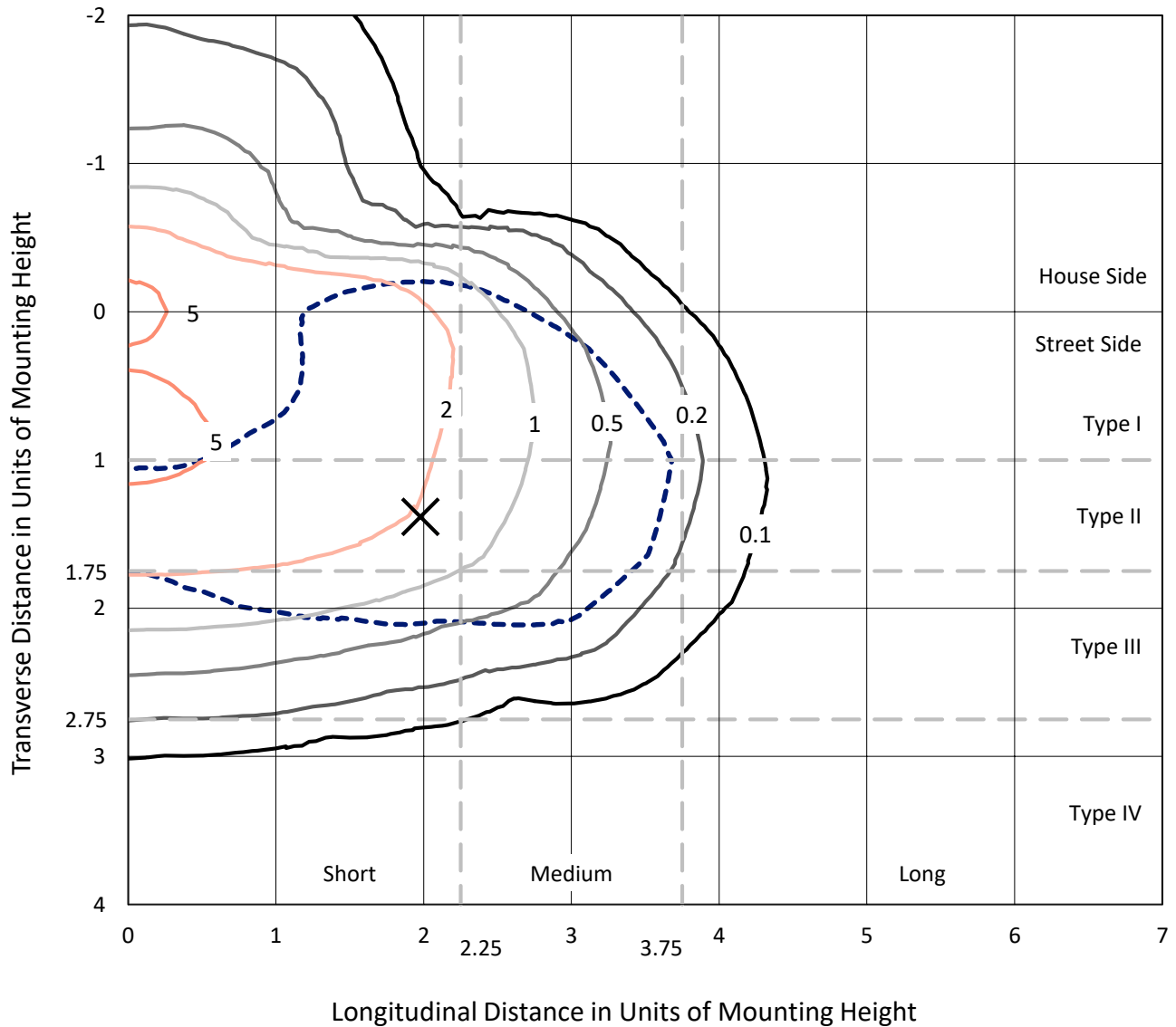


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

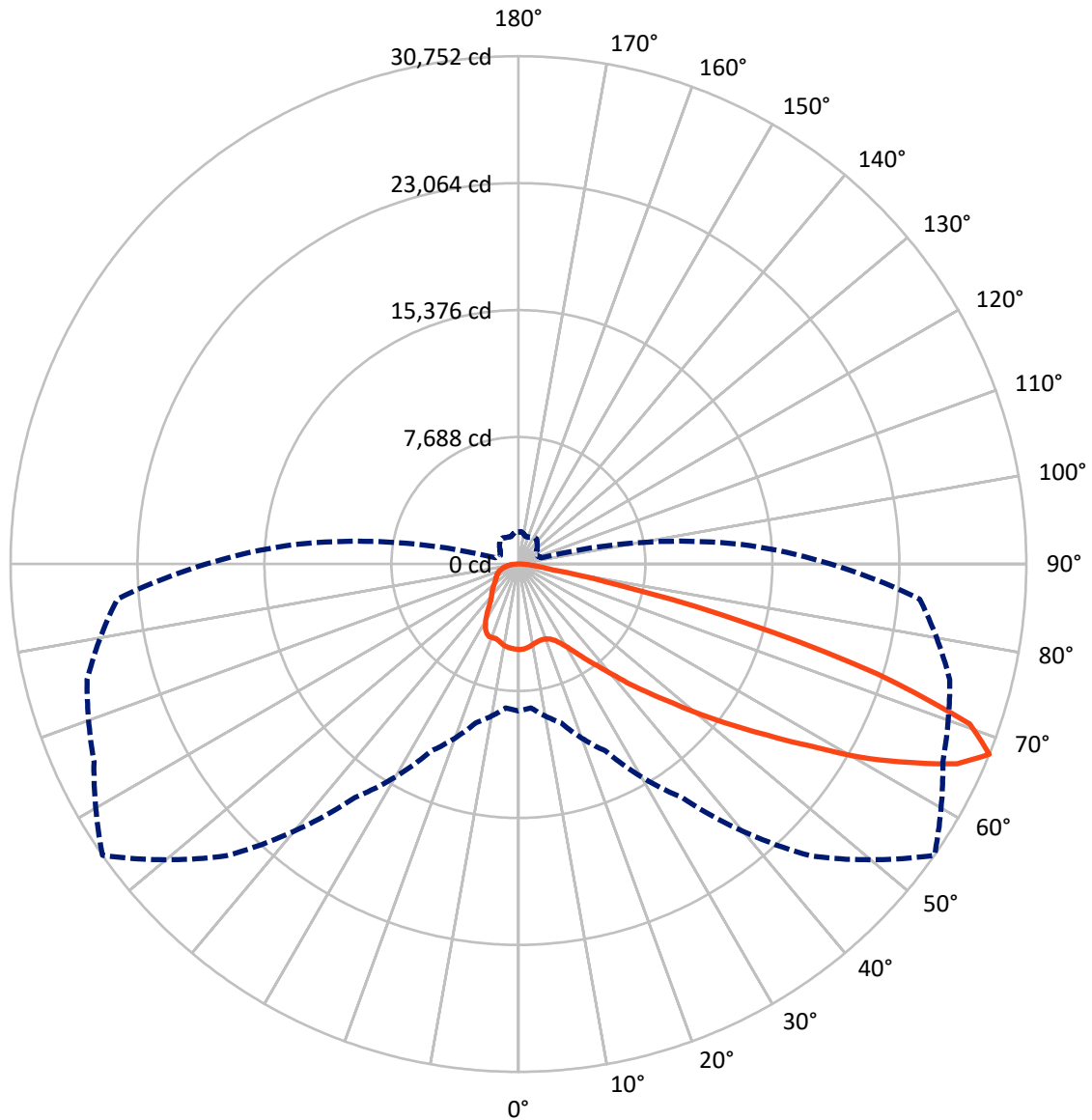


Based on 30 foot mounting height. Maximum calculated value = 5.9 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9065.7	0.0	9065.7
	% Fixture	21.6	0.0	21.6
Street Side	Lumens	32901.2	0.0	32901.2
	% Fixture	78.4	0.0	78.4
Total	Lumens	41966.9	0.0	41966.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	483.0	1.2
10°-20°	1368.0	3.3
20°-30°	2291.6	5.5
30°-40°	3768.4	9.0
40°-50°	6343.3	15.1
50°-60°	9983.9	23.8
60°-70°	11914.7	28.4
70°-80°	5116.4	12.2
80°-90°	697.6	1.7
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°	41966.9	100.0
0°-180°	41966.9	100.0



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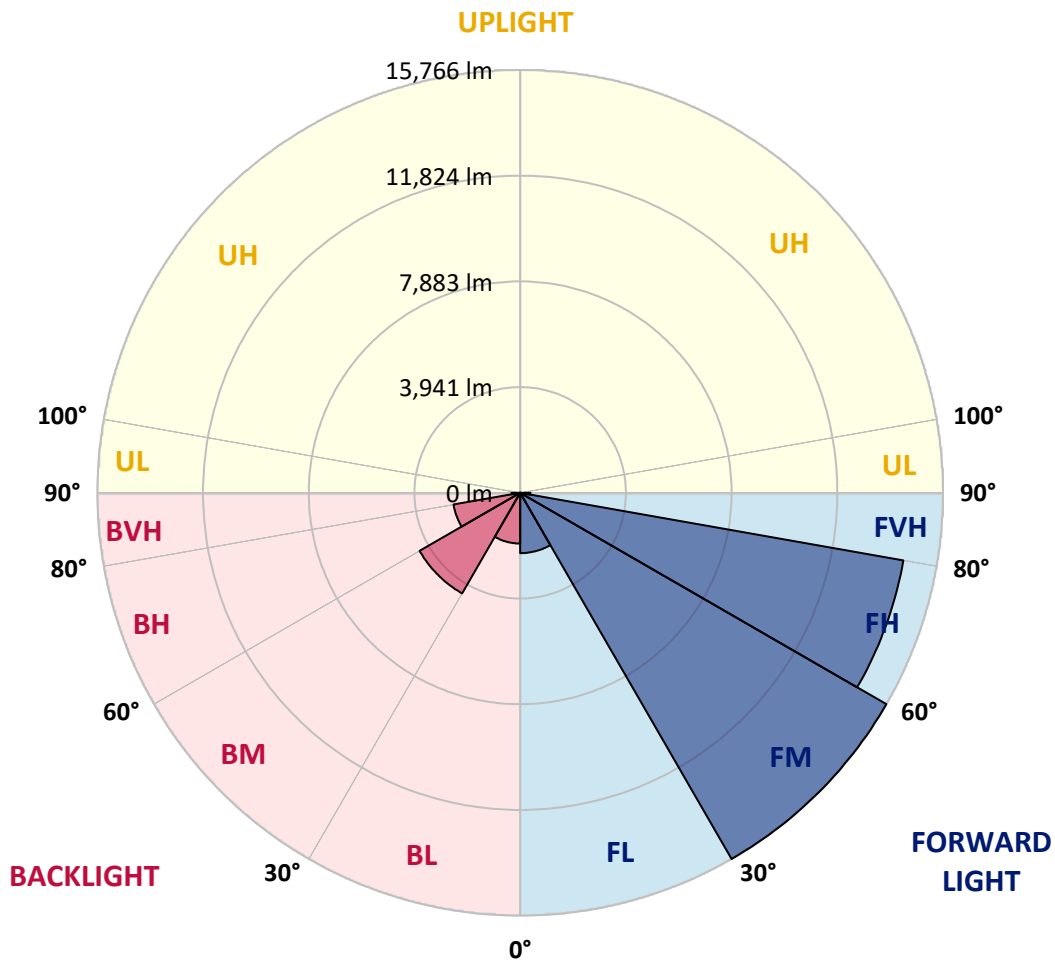
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2249.5	5.4			
FM	(30°-60°)	15765.9	37.6			
FH	(60°-80°)	14508.2	34.6			G5
FVH	(80°-90°)	377.6	0.9			G3/500
BL	(0°-30°)	1893.1	4.5	B3/2500		
BM	(30°-60°)	4329.7	10.3	B3/5000		
BH	(60°-80°)	2523.0	6.0	B4/5000		G4/5000
BVH	(80°-90°)	320.0	0.8			G3/500
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 Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	5175.0	5175.0	5175.0	5175.0	5175.0	5175.0	5175.0	5175.0	5175.0	5175.0	5175.0
2.5°	5130.4	5132.4	5136.5	5152.7	5166.9	5162.8	5164.8	5156.7	5154.7	5142.5	5154.7
5°	5065.5	5071.6	5073.6	5100.0	5116.2	5120.2	5114.2	5104.0	5091.9	5079.7	5085.8
7.5°	4917.5	4933.8	4935.8	4972.3	4998.6	5033.1	5035.1	5037.1	5031.1	5023.0	5035.1
10°	4824.3	4828.4	4826.3	4852.7	4873.0	4911.5	4933.8	4972.3	4988.5	4992.5	5000.7
12.5°	4818.2	4814.2	4808.1	4808.1	4802.0	4818.2	4858.8	4913.5	4952.0	4964.2	4974.3
15°	4883.1	4881.1	4860.8	4830.4	4791.9	4779.7	4814.2	4875.0	4925.7	4952.0	4962.1
17.5°	5029.0	5016.9	4984.4	4915.5	4832.4	4800.0	4804.0	4854.7	4913.5	4948.0	4958.1
20°	5296.6	5296.6	5227.7	5097.9	4950.0	4873.0	4836.5	4866.9	4923.6	4970.2	4984.4
22.5°	5758.8	5762.8	5647.3	5434.4	5185.1	5020.9	4929.7	4923.6	4990.5	5043.2	5059.4
25°	6413.5	6397.3	6235.1	5931.1	5552.0	5280.4	5122.3	5085.8	5142.5	5201.3	5221.6
27.5°	7175.6	7116.9	6924.3	6557.4	6066.9	5669.6	5426.3	5367.5	5422.3	5489.2	5509.4
30°	7929.7	7868.9	7639.8	7238.5	6693.2	6190.5	5841.9	5746.6	5823.6	5918.9	5931.1
32.5°	8683.7	8683.7	8428.3	7960.1	7366.2	6812.8	6395.2	6281.7	6409.4	6525.0	6551.3
35°	9585.8	9589.8	9342.5	8779.0	8140.5	7554.7	7094.6	7011.5	7204.0	7285.1	7347.9
37.5°	10694.5	10716.8	10398.6	9717.5	9018.2	8402.0	7854.7	7741.2	7933.7	8154.7	8357.4
40°	11892.5	11920.9	11570.2	10731.0	10031.7	9387.1	8795.2	8590.5	8910.8	9332.4	9593.9
42.5°	13035.8	13181.7	12843.2	11979.7	11227.7	10560.8	9960.8	9662.8	10064.1	10700.6	10927.7
45°	14687.8	14793.2	14203.3	13420.9	12713.5	11967.5	11172.9	10858.7	11420.2	12222.9	12269.5
47.5°	15788.4	15709.4	15409.4	14922.9	14474.9	13777.6	12581.7	12237.1	12983.0	13927.6	13666.2
50°	16374.2	16398.6	16358.0	16386.4	16402.6	15964.8	14308.7	13836.4	14726.3	15867.5	15265.5
52.5°	16921.5	16759.4	16893.2	17558.0	18360.7	18198.6	16187.8	15695.2	16595.2	18020.2	16956.0
55°	16909.4	16662.1	17097.9	18271.5	20012.7	20199.2	18297.9	17730.3	18571.5	20329.0	18747.9
57.5°	16311.4	16323.6	16994.5	18531.0	21164.1	22080.3	20746.5	19895.2	20667.5	22668.1	20383.7
60°	15488.4	15599.9	16566.8	18488.4	22086.4	23622.9	23750.6	22228.3	22720.8	24794.5	21737.7
62.5°	14160.7	14278.3	15612.1	18046.5	21946.5	25108.7	26466.8	24875.6	24867.5	26083.7	22135.0
65°	12066.8	12032.4	13433.0	16394.5	20772.9	26207.3	29164.7	27164.1	26485.0	26103.9	21336.4
67.5°	8898.6	8744.6	9946.6	12486.4	17266.1	24976.9	30751.9	28356.0	27036.4	24387.1	18895.9
70°	4617.5	4463.5	5436.5	7291.2	11355.4	19493.8	28994.5	27739.7	25818.1	20442.5	14803.3
72.5°	1974.3	1948.0	2343.2	3198.6	5493.2	11243.9	22735.0	24010.0	22153.3	15231.0	10177.7
75°	1327.7	1319.6	1467.6	1743.2	2470.9	4562.8	14227.6	17043.2	16208.0	9443.9	5724.3
77.5°	1041.9	1031.8	1118.9	1252.7	1601.3	1800.0	6314.2	9150.0	8468.9	4110.8	2505.4
80°	814.9	806.8	861.5	934.5	1151.3	1135.1	2077.7	3640.5	2817.6	1575.0	1218.2
82.5°	642.6	642.6	687.2	689.2	816.9	774.3	1084.5	1603.4	1406.8	918.2	745.9
85°	587.8	587.8	634.5	514.9	533.1	488.5	673.0	950.7	891.9	377.0	324.3
87.5°	295.9	287.8	533.1	456.1	289.9	259.5	328.4	460.1	494.6	208.8	162.2
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5175.0	5175.0	5175.0	5175.0	5175.0	5175.0	5175.0	5175.0	5175.0	5175.0
2.5°	5150.7	5148.6	5152.7	5154.7	5170.9	5193.2	5203.4	5217.5	5225.7	5221.6
5°	5089.8	5093.9	5110.1	5122.3	5150.7	5187.1	5207.4	5223.6	5237.8	5231.7
7.5°	5039.2	5049.3	5073.6	5083.8	5100.0	5110.1	5108.1	5114.2	5126.3	5112.1
10°	5010.8	5023.0	5041.2	5027.0	4988.5	4933.8	4883.1	4856.7	4864.8	4854.7
12.5°	4982.4	4998.6	4984.4	4917.5	4810.1	4739.2	4700.7	4704.7	4723.0	4727.0
15°	4966.2	4972.3	4911.5	4785.8	4676.3	4666.2	4686.5	4682.4	4684.4	4684.4
17.5°	4966.2	4950.0	4836.5	4710.8	4664.2	4645.9	4583.1	4504.0	4469.6	4457.4
20°	4992.5	4950.0	4812.1	4729.0	4627.7	4471.6	4305.4	4159.4	4094.6	4076.3
22.5°	5071.6	4998.6	4881.1	4737.1	4449.3	4187.8	3924.3	3750.0	3632.4	3612.1
25°	5231.7	5150.7	5016.9	4629.7	4165.5	3792.6	3492.6	3298.0	3180.4	3164.2
27.5°	5511.5	5458.8	5089.8	4392.5	3788.5	3389.2	3111.5	2961.5	2874.3	2868.2
30°	5933.1	5906.7	5053.4	4041.9	3324.3	2998.0	2864.2	2777.0	2712.1	2710.1
32.5°	6606.1	6393.2	4933.8	3614.2	2900.7	2720.3	2665.5	2612.8	2562.2	2562.2
35°	7471.6	6786.5	4706.7	3156.1	2643.2	2566.2	2497.3	2414.2	2347.3	2343.2
37.5°	8489.2	7029.7	4299.3	2787.1	2521.6	2462.8	2361.5	2237.8	2120.3	2100.0
40°	9516.8	7102.7	3725.7	2560.1	2444.6	2359.4	2235.8	2089.9	1976.3	1970.3
42.5°	10459.4	6962.8	3117.6	2404.0	2367.6	2254.0	2124.3	1994.6	1905.4	1903.4
45°	11249.9	6600.0	2606.7	2256.1	2286.5	2158.8	2043.2	1937.8	1868.9	1854.7
47.5°	11993.9	6087.1	2248.0	2100.0	2205.4	2106.1	2008.8	1909.5	1842.6	1832.4
50°	12857.4	5533.8	1996.6	1948.0	2134.4	2087.8	2037.2	1933.8	1822.3	1810.1
52.5°	13903.3	5055.4	1800.0	1814.2	2079.7	2112.2	2110.1	2002.7	1808.1	1791.9
55°	15070.9	4524.3	1652.0	1704.7	2057.4	2156.7	2128.4	2067.6	1820.3	1795.9
57.5°	16220.2	3904.0	1548.6	1621.6	2025.0	2152.7	2041.2	1954.0	1848.6	1814.2
60°	17081.7	3070.9	1469.6	1548.6	1954.0	2085.8	1945.9	1830.4	1842.6	1816.2
62.5°	17138.4	2373.6	1374.3	1485.8	1846.6	2018.9	1883.1	1775.7	1868.9	1844.6
65°	16131.0	1793.9	1283.1	1410.8	1731.1	1976.3	1822.3	1745.3	1923.6	1897.3
67.5°	13581.0	1443.2	1206.1	1333.8	1615.5	1887.2	1767.6	1716.9	1972.3	1925.7
70°	9804.7	1230.4	1131.1	1240.5	1512.2	1785.8	1718.9	1666.2	1840.5	1767.6
72.5°	6036.5	1066.2	1045.9	1116.9	1433.1	1680.4	1645.9	1570.9	1658.1	1599.3
75°	3014.2	924.3	950.7	995.3	1321.6	1560.8	1524.3	1449.3	1461.5	1449.3
77.5°	1443.2	790.5	839.2	873.6	1177.7	1425.0	1386.5	1309.5	1295.3	1297.3
80°	914.2	660.8	707.4	731.8	1052.0	1266.9	1228.4	1151.3	1313.5	1218.2
82.5°	571.6	537.2	549.3	593.9	916.2	1102.7	1052.0	983.1	1183.8	936.5
85°	316.2	375.0	391.2	429.7	705.4	922.3	871.6	784.5	703.4	691.2
87.5°	188.5	223.0	229.1	257.4	474.3	666.9	589.9	559.5	464.2	462.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)