

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: P299143

Luminaire Tested: **GLNA-AF-09-LED-E1-T3-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299143  
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-09-LED-E1-T3-7027  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 46085.3 lumens  
Efficiency: N/A  
Efficacy: 92.0 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type III - Short - Full Cutoff  
BUG Rating: B4 - U0 - G5

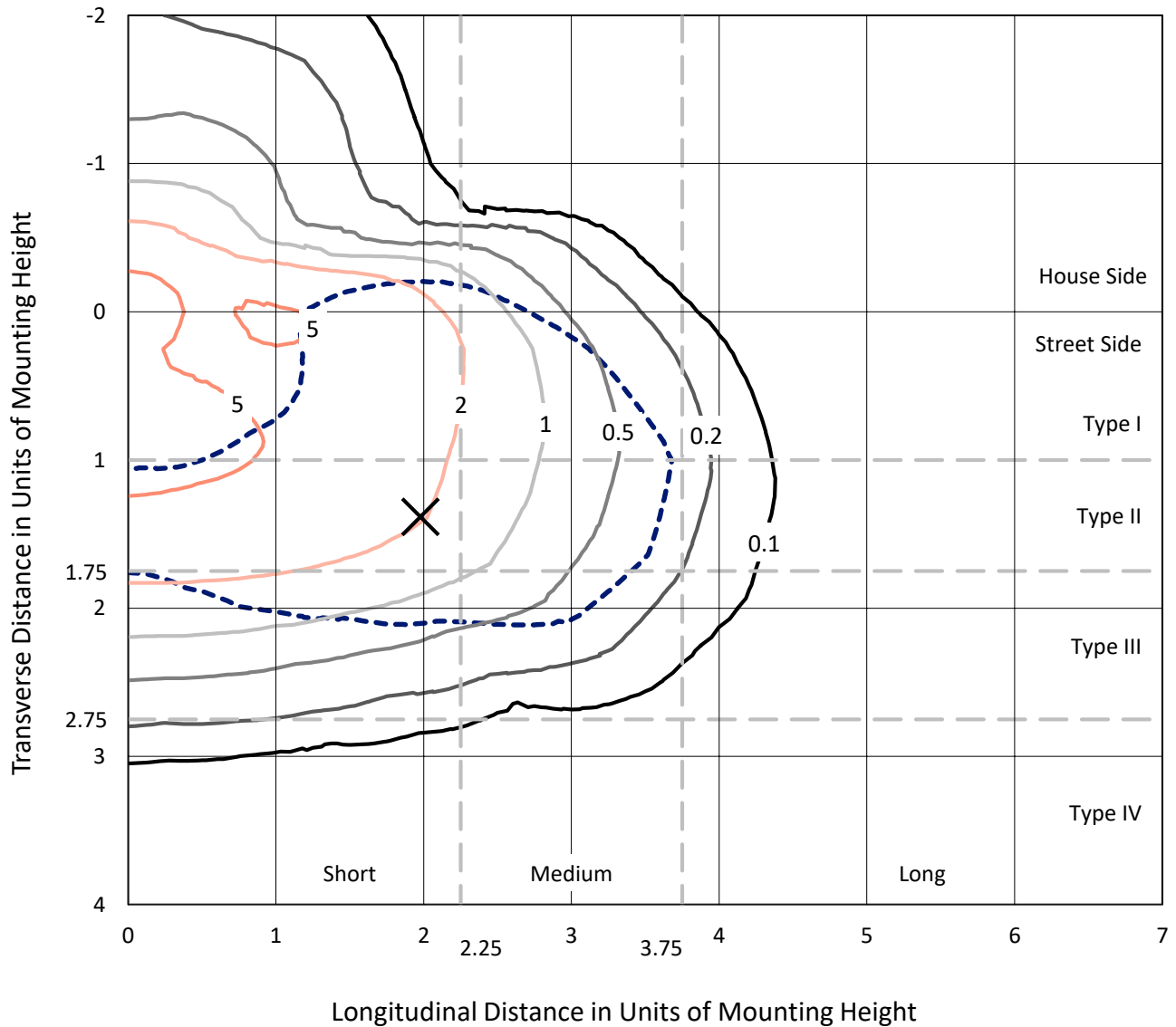
Input Watts (W): 501  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

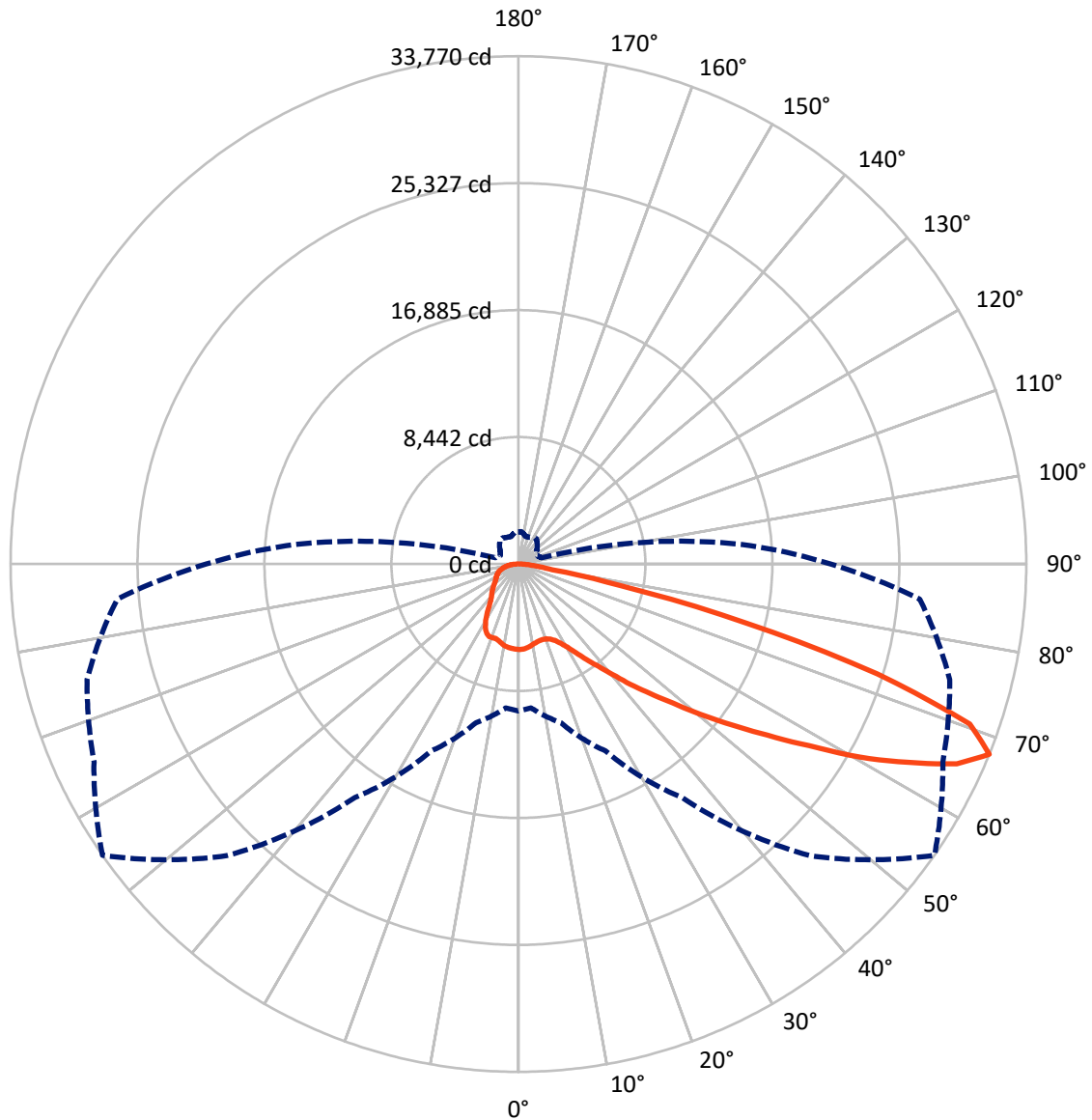
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.5 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
<b>House Side</b>	Lumens	9955.4	0.0	9955.4
	% Fixture	21.6	0.0	21.6
<b>Street Side</b>	Lumens	36129.9	0.0	36129.9
	% Fixture	78.4	0.0	78.4
<b>Total</b>	Lumens	46085.3	0.0	46085.3
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	530.4	1.2
10°-20°	1502.3	3.3
20°-30°	2516.5	5.5
30°-40°	4138.2	9.0
40°-50°	6965.8	15.1
50°-60°	10963.7	23.8
60°-70°	13084.0	28.4
70°-80°	5618.5	12.2
80°-90°	766.0	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°	46085.3	100.0
0°-180°	46085.3	100.0



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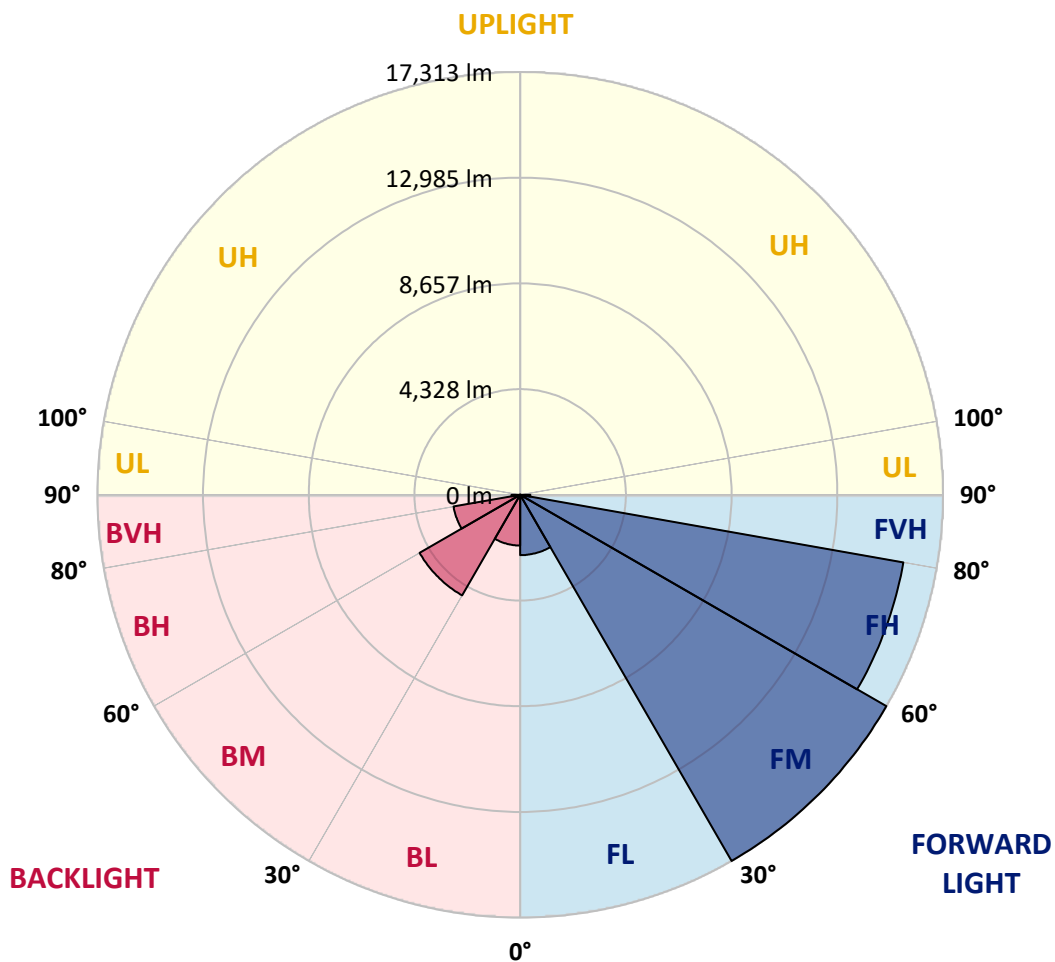
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2470.3	5.4			
FM (30°-60°)	17313.0	37.6			
FH (60°-80°)	15931.9	34.6			G5
FVH (80°-90°)	414.7	0.9			G3/500
BL (0°-30°)	2078.9	4.5	B3/2500		
BM (30°-60°)	4754.6	10.3	B3/5000		
BH (60°-80°)	2770.6	6.0	B4/5000		G4/5000
BVH (80°-90°)	351.4	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°	5682.8	5682.8	5682.8	5682.8	5682.8	5682.8	5682.8	5682.8	5682.8	5682.8	5682.8
2.5°	5633.9	5636.1	5640.5	5658.3	5673.9	5669.5	5671.7	5662.8	5660.6	5647.2	5660.6
5°	5562.6	5569.3	5571.5	5600.5	5618.3	5622.7	5616.0	5604.9	5591.6	5578.2	5584.9
7.5°	5400.1	5417.9	5420.2	5460.2	5489.2	5527.0	5529.2	5531.5	5524.8	5515.9	5529.2
10°	5297.7	5302.2	5300.0	5328.9	5351.2	5393.4	5417.9	5460.2	5478.0	5482.5	5491.4
12.5°	5291.1	5286.6	5279.9	5279.9	5273.2	5291.1	5335.6	5395.7	5438.0	5451.3	5462.5
15°	5362.3	5360.1	5337.8	5304.4	5262.1	5248.8	5286.6	5353.4	5409.0	5438.0	5449.1
17.5°	5522.6	5509.2	5473.6	5397.9	5306.6	5271.0	5275.5	5331.1	5395.7	5433.5	5444.6
20°	5816.4	5816.4	5740.7	5598.2	5435.7	5351.2	5311.1	5344.5	5406.8	5458.0	5473.6
22.5°	6323.9	6328.3	6201.5	5967.7	5694.0	5513.6	5413.5	5406.8	5480.3	5538.1	5555.9
25°	7042.9	7025.1	6847.0	6513.1	6096.8	5798.6	5624.9	5584.9	5647.2	5711.8	5734.0
27.5°	7879.8	7815.3	7603.8	7200.9	6662.2	6225.9	5958.8	5894.3	5954.4	6027.8	6050.1
30°	8707.9	8641.1	8389.6	7948.8	7350.0	6798.0	6415.2	6310.5	6395.1	6499.7	6513.1
32.5°	9535.9	9535.9	9255.5	8741.3	8089.1	7481.4	7022.8	6898.2	7038.4	7165.3	7194.2
35°	10526.5	10530.9	10259.4	9640.5	8939.4	8296.1	7790.8	7699.5	7911.0	8000.0	8069.0
37.5°	11744.1	11768.5	11419.1	10671.1	9903.2	9226.5	8625.5	8500.9	8712.3	8955.0	9177.5
40°	13059.6	13090.7	12705.7	11784.1	11016.2	10308.3	9658.3	9433.5	9785.2	10248.2	10535.4
42.5°	14315.0	14475.3	14103.5	13155.3	12329.5	11597.1	10938.3	10611.0	11051.8	11750.7	12000.0
45°	16129.2	16244.9	15597.2	14737.9	13961.1	13141.9	12269.4	11924.4	12540.9	13422.4	13473.6
47.5°	17337.8	17251.0	16921.6	16387.4	15895.4	15129.7	13816.4	13438.0	14257.1	15294.4	15007.3
50°	17981.1	18007.8	17963.3	17994.5	18012.3	17531.5	15712.9	15194.3	16171.4	17424.6	16763.5
52.5°	18582.1	18404.1	18551.0	19281.1	20162.6	19984.5	17776.3	17235.4	18223.8	19788.6	18620.0
55°	18568.8	18297.2	18775.8	20064.6	21976.7	22181.5	20093.5	19470.3	20394.0	22323.9	20587.7
57.5°	17912.1	17925.5	18662.3	20349.5	23241.0	24247.1	22782.5	21847.6	22695.7	24892.7	22384.0
60°	17008.4	17130.8	18192.6	20302.8	24253.8	25941.1	26081.3	24409.6	24950.5	27227.7	23871.0
62.5°	15550.4	15679.5	17144.2	19817.5	24100.2	27572.7	29064.1	27316.7	27307.8	28643.4	24307.2
65°	13251.0	13213.2	14751.3	18003.4	22811.4	28779.2	32026.8	29829.8	29084.1	28665.6	23430.2
67.5°	9771.9	9602.7	10922.7	13711.8	18960.5	27428.0	33769.7	31138.7	29689.6	26780.3	20750.2
70°	5070.7	4901.5	5970.0	8006.7	12469.7	21406.9	31839.8	30462.0	28351.8	22448.6	16256.0
72.5°	2168.1	2139.1	2573.2	3512.5	6032.3	12347.3	24966.1	26366.2	24327.3	16725.7	11176.4
75°	1458.0	1449.1	1611.6	1914.3	2713.4	5010.6	15623.9	18715.7	17798.6	10370.6	6286.1
77.5°	1144.1	1133.0	1228.7	1375.6	1758.5	1976.6	6933.8	10047.9	9300.0	4514.2	2751.3
80°	894.8	885.9	946.0	1026.2	1264.3	1246.5	2281.6	3997.8	3094.1	1729.6	1337.8
82.5°	705.6	705.6	754.6	756.8	897.1	850.3	1190.9	1760.7	1544.8	1008.4	819.1
85°	645.5	645.5	696.7	565.4	585.4	536.5	739.0	1044.0	979.4	414.0	356.2
87.5°	325.0	316.1	585.4	500.8	318.3	284.9	360.6	505.3	543.1	229.3	178.1
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°	5682.8	5682.8	5682.8	5682.8	5682.8	5682.8	5682.8	5682.8	5682.8	5682.8
2.5°	5656.1	5653.9	5658.3	5660.6	5678.4	5702.9	5714.0	5729.6	5738.5	5734.0
5°	5589.3	5593.8	5611.6	5624.9	5656.1	5696.2	5718.4	5736.2	5751.8	5745.1
7.5°	5533.7	5544.8	5571.5	5582.7	5600.5	5611.6	5609.4	5616.0	5629.4	5613.8
10°	5502.5	5515.9	5535.9	5520.3	5478.0	5417.9	5362.3	5333.3	5342.3	5331.1
12.5°	5471.4	5489.2	5473.6	5400.1	5282.2	5204.2	5162.0	5166.4	5186.4	5190.9
15°	5453.5	5460.2	5393.4	5255.4	5135.2	5124.1	5146.4	5141.9	5144.1	5144.1
17.5°	5453.5	5435.7	5311.1	5173.1	5121.9	5101.9	5032.8	4946.0	4908.2	4894.8
20°	5482.5	5435.7	5284.4	5193.1	5081.8	4910.4	4727.9	4567.6	4496.4	4476.4
22.5°	5569.3	5489.2	5360.1	5202.0	4885.9	4598.8	4309.4	4118.0	3988.9	3966.6
25°	5745.1	5656.1	5509.2	5084.0	4574.3	4164.7	3835.3	3621.6	3492.5	3474.7
27.5°	6052.3	5994.5	5589.3	4823.6	4160.3	3721.8	3416.8	3252.1	3156.4	3149.7
30°	6515.3	6486.4	5549.3	4438.5	3650.5	3292.2	3145.3	3049.5	2978.3	2976.1
32.5°	7254.3	7020.6	5417.9	3968.8	3185.3	2987.2	2927.1	2869.2	2813.6	2813.6
35°	8204.8	7452.4	5168.6	3465.8	2902.6	2818.0	2742.4	2651.1	2577.6	2573.2
37.5°	9322.2	7719.6	4721.2	3060.7	2769.1	2704.5	2593.2	2457.4	2328.3	2306.1
40°	10450.8	7799.7	4091.3	2811.4	2684.5	2591.0	2455.2	2294.9	2170.3	2163.6
42.5°	11485.8	7646.1	3423.5	2640.0	2599.9	2475.2	2332.8	2190.3	2092.4	2090.2
45°	12354.0	7247.7	2862.6	2477.5	2510.9	2370.6	2243.7	2128.0	2052.3	2036.7
47.5°	13170.9	6684.5	2468.6	2306.1	2421.8	2312.8	2205.9	2096.8	2023.4	2012.2
50°	14119.1	6076.8	2192.5	2139.1	2343.9	2292.7	2237.1	2123.5	2001.1	1987.8
52.5°	15267.7	5551.5	1976.6	1992.2	2283.8	2319.4	2317.2	2199.2	1985.5	1967.7
55°	16549.9	4968.3	1814.1	1872.0	2259.3	2368.4	2337.2	2270.5	1998.9	1972.2
57.5°	17812.0	4287.2	1700.6	1780.8	2223.7	2363.9	2241.5	2145.8	2030.1	1992.2
60°	18758.0	3372.3	1613.8	1700.6	2145.8	2290.5	2136.9	2010.0	2023.4	1994.4
62.5°	18820.3	2606.6	1509.2	1631.6	2027.8	2217.0	2067.9	1949.9	2052.3	2025.6
65°	17714.0	1970.0	1409.0	1549.3	1901.0	2170.3	2001.1	1916.5	2112.4	2083.5
67.5°	14913.8	1584.9	1324.4	1464.7	1774.1	2072.3	1941.0	1885.4	2165.8	2114.6
70°	10766.9	1351.1	1242.1	1362.3	1660.6	1961.1	1887.6	1829.7	2021.2	1941.0
72.5°	6628.8	1170.8	1148.6	1226.5	1573.7	1845.3	1807.5	1725.1	1820.8	1756.3
75°	3310.0	1015.0	1044.0	1092.9	1451.3	1714.0	1673.9	1591.5	1604.9	1591.5
77.5°	1584.9	868.1	921.5	959.4	1293.3	1564.8	1522.5	1438.0	1422.4	1424.6
80°	1003.9	725.7	776.9	803.6	1155.3	1391.2	1348.9	1264.3	1442.4	1337.8
82.5°	627.7	589.9	603.2	652.2	1006.1	1210.9	1155.3	1079.6	1299.9	1028.4
85°	347.2	411.8	429.6	471.9	774.6	1012.8	957.2	861.4	772.4	759.0
87.5°	207.0	244.9	251.5	282.7	520.9	732.3	647.7	614.4	509.7	507.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)