

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: P299203

Luminaire Tested: **GLNA-AF-09-LED-E1-SL2-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299203
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24286)
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-SL2-7027-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Narrow OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 36465 lumens
Efficiency: N/A
Efficacy: 97.5 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G5

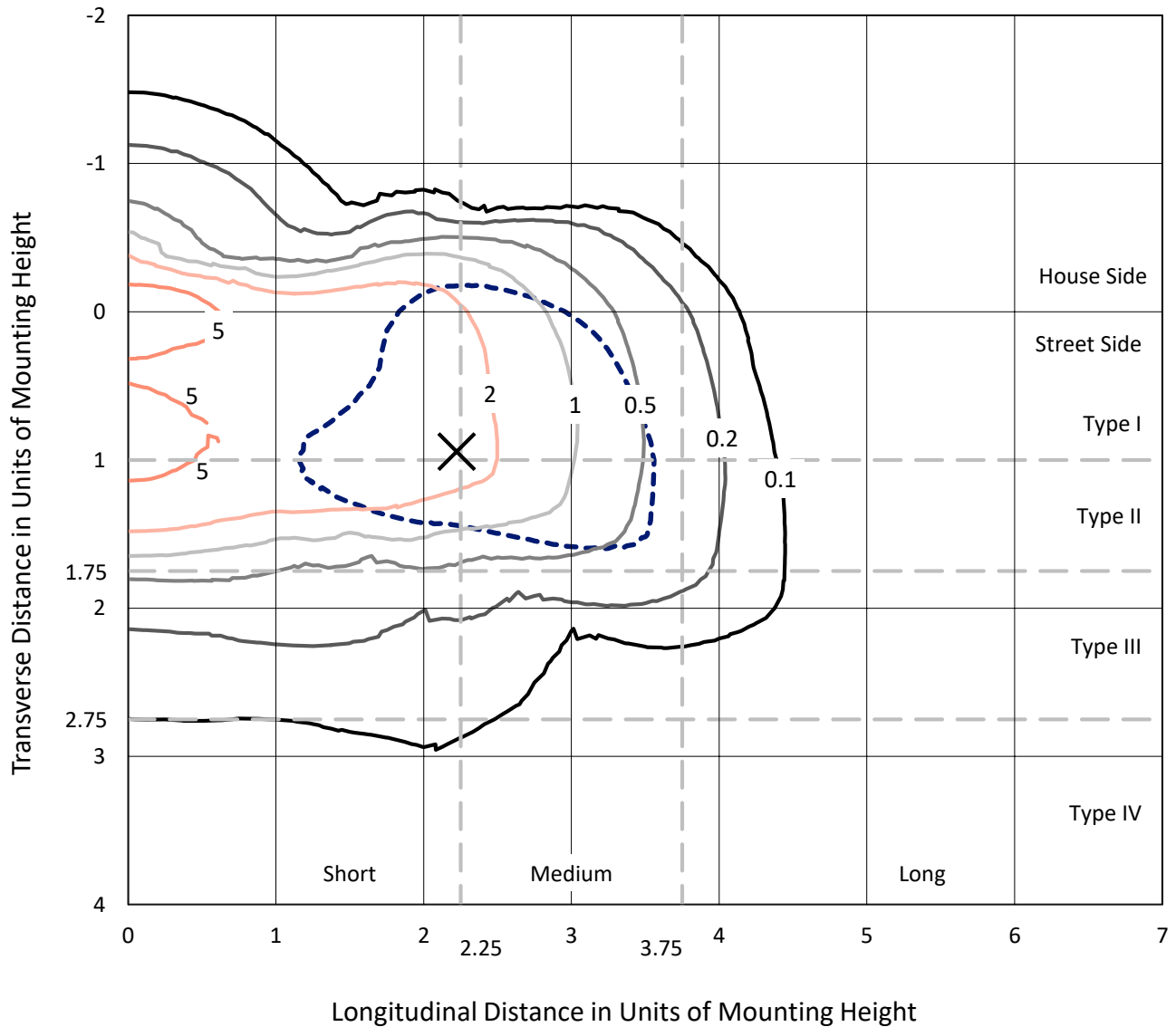
Input Watts (W): 374
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

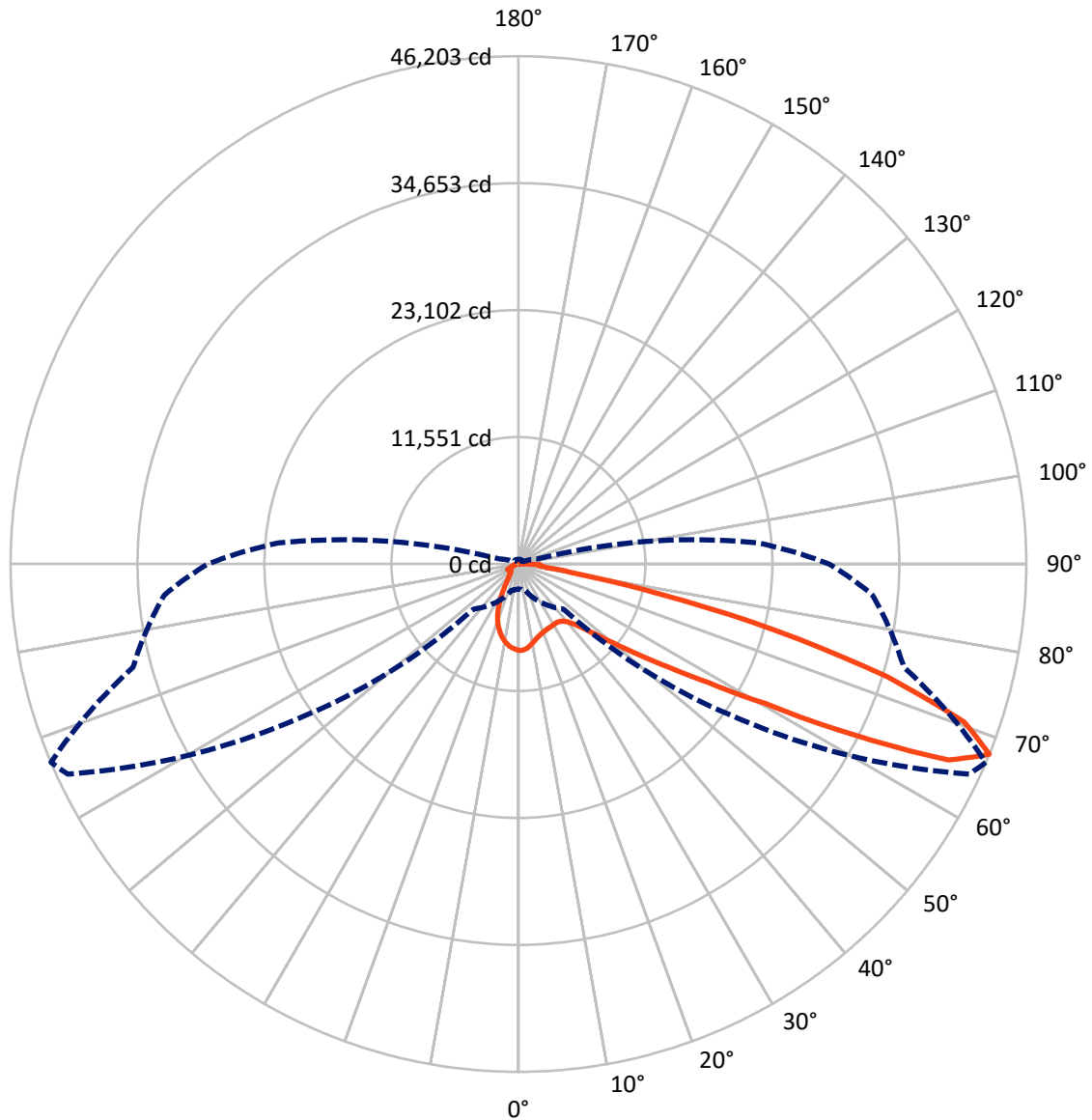
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 8.7 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6041.8	0.0	6041.8
	% Fixture	16.6	0.0	16.6
Street Side	Lumens	30423.1	0.0	30423.1
	% Fixture	83.4	0.0	83.4
Total	Lumens	36465.0	0.0	36465.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	671.0	1.8
10°-20°	1552.7	4.3
20°-30°	2104.7	5.8
30°-40°	2992.0	8.2
40°-50°	5005.8	13.7
50°-60°	7919.1	21.7
60°-70°	10088.1	27.7
70°-80°	5284.1	14.5
80°-90°	847.5	2.3
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°	36465.0	100.0
0°-180°	36465.0	100.0

Coefficient of Utilization



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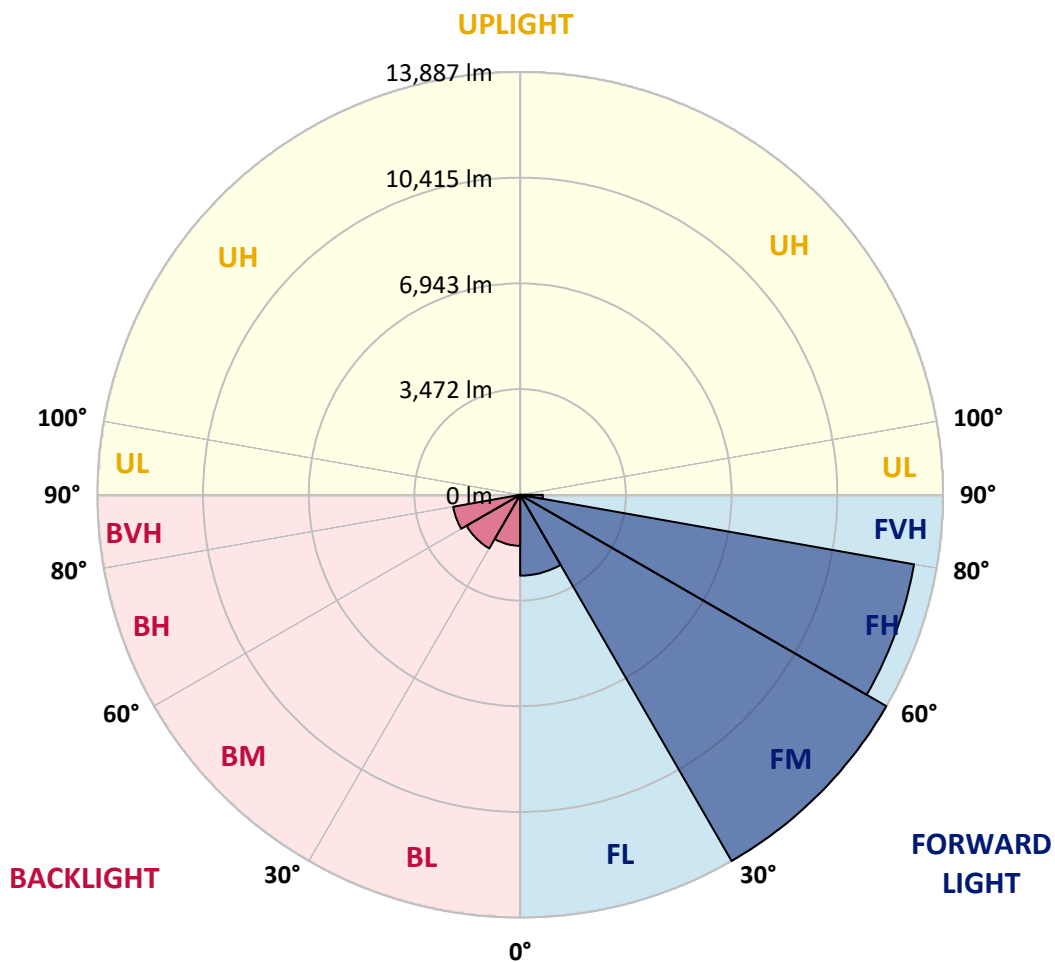
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2653.8	7.3			
FM (30°-60°)	13886.6	38.1			
FH (60°-80°)	13137.6	36.0			G5
FVH (80°-90°)	745.2	2.0			G4/750
BL (0°-30°)	1674.6	4.6	B3/2500		
BM (30°-60°)	2030.2	5.6	B2/2500		
BH (60°-80°)	2234.7	6.1	B3/2500		G3/2500
BVH (80°-90°)	102.3	0.3			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	7865.4	7865.4	7865.4	7865.4	7865.4	7865.4	7865.4	7865.4	7865.4	7865.4	7865.4
2.5°	7541.7	7554.3	7593.9	7619.1	7732.3	7780.9	7815.1	7849.2	7854.6	7870.8	7854.6
5°	6750.5	6777.5	6851.2	6933.9	7153.3	7325.9	7507.6	7696.4	7730.5	7852.8	7887.0
7.5°	6137.3	6130.1	6191.3	6290.2	6514.9	6754.1	7072.4	7448.2	7521.9	7797.1	7930.1
10°	5689.6	5684.2	5748.9	5851.4	6065.4	6292.0	6651.6	7165.9	7270.2	7709.0	7971.5
12.5°	5358.7	5360.5	5425.2	5538.5	5756.1	5984.5	6349.5	6892.6	7025.6	7606.5	8014.7
15°	5139.3	5153.7	5205.8	5326.3	5538.5	5766.9	6124.7	6687.6	6836.8	7525.5	8063.2
17.5°	5065.6	5089.0	5106.9	5195.1	5376.7	5605.0	5955.7	6536.5	6694.8	7469.8	8106.4
20°	5133.9	5160.9	5126.7	5157.3	5272.4	5473.8	5822.6	6417.8	6579.7	7406.9	8111.8
22.5°	5427.0	5452.2	5351.5	5263.4	5256.2	5378.5	5712.9	6324.3	6491.6	7360.1	8113.6
25°	5943.1	5959.3	5790.3	5585.3	5385.7	5344.3	5635.6	6259.6	6437.6	7318.7	8079.4
27.5°	6576.1	6588.7	6394.5	6092.4	5691.4	5425.2	5608.6	6221.8	6407.1	7282.8	8021.9
30°	7345.7	7405.1	7144.3	6763.1	6178.7	5664.4	5662.6	6202.1	6372.9	7221.6	7908.6
32.5°	8133.3	8158.5	7978.7	7592.1	6835.0	6085.2	5813.6	6216.4	6363.9	7147.9	7764.7
35°	8931.8	8964.1	8847.2	8536.1	7732.3	6702.0	6108.5	6301.0	6419.6	7122.7	7664.0
37.5°	9965.7	10008.9	9847.0	9487.4	8823.9	7538.1	6599.5	6513.1	6590.5	7194.7	7633.4
40°	11600.3	11580.5	11107.6	10571.7	10017.9	8608.1	7300.8	6872.8	6917.7	7426.6	7726.9
42.5°	13502.8	13454.3	12639.7	11798.1	11330.6	9902.8	8228.6	7496.8	7487.8	7883.4	8056.0
45°	15020.5	14981.0	14247.3	13209.7	12835.7	11377.3	9428.1	8426.5	8359.9	8608.1	8663.8
47.5°	15842.3	15844.1	15421.5	14574.6	14565.6	13251.1	10969.1	9771.5	9656.4	9773.3	9714.0
50°	15554.6	15592.4	15547.4	15277.7	16144.4	15707.4	12981.3	11647.1	11415.1	11530.2	11301.8
52.5°	14162.8	14211.3	14477.5	14891.0	16807.9	18676.3	15937.6	13977.6	13707.8	13666.5	13412.9
55°	11695.6	11755.0	12298.0	13421.9	16255.9	20670.5	20602.2	16948.2	16518.4	16128.2	16020.3
57.5°	8061.4	8160.3	9034.3	10703.0	14470.3	21272.9	26156.9	21183.0	20309.1	18946.0	18971.2
60°	4544.1	4659.2	5689.6	7205.5	10866.6	20618.4	30382.7	27597.3	25752.3	22245.8	22432.8
62.5°	2889.7	3013.8	3796.0	5006.2	6520.3	17093.9	32114.4	36514.6	34171.5	26313.3	26496.8
65°	2339.5	2393.4	2762.1	4132.3	4734.7	10298.4	30799.9	43860.3	42986.4	31476.0	30620.1
67.5°	2283.7	2301.7	2492.3	3468.8	4540.5	5788.5	24567.3	45234.2	46203.4	36297.0	32337.4
70°	2256.8	2319.7	2808.8	3310.5	4348.1	4882.2	14763.4	41468.7	42999.0	37557.6	30051.8
72.5°	1095.1	1091.5	1413.4	2994.0	4898.3	5063.8	7584.9	33553.0	35088.6	32538.8	24694.9
75°	882.9	807.4	771.4	1096.9	4709.5	5229.2	4833.6	23087.3	24198.6	21816.0	15180.6
77.5°	838.0	748.1	685.1	686.9	1990.6	5545.7	4094.5	12778.1	13101.8	9854.2	4159.3
80°	694.1	611.4	566.4	638.4	963.8	5281.4	4427.2	5783.1	5306.5	2420.4	1384.6
82.5°	481.9	438.8	426.2	535.9	771.4	3763.7	5148.3	3107.3	2605.6	1212.0	854.2
85°	307.5	262.5	291.3	390.2	600.6	1737.1	5302.9	2422.2	1925.9	769.6	481.9
87.5°	142.1	115.1	143.9	215.8	392.0	598.8	5045.8	2720.7	1983.4	406.4	303.9
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°	7865.4	7865.4	7865.4	7865.4	7865.4	7865.4	7865.4	7865.4	7865.4	7865.4	7865.4
2.5°	7869.0	7834.8	7807.9	7757.5	7701.8	7647.8	7599.3	7538.1	7520.2	7504.0	7529.1
5°	7894.2	7860.0	7761.1	7606.5	7435.6	7275.6	7115.6	6978.9	6894.4	6847.6	6874.6
7.5°	7931.9	7883.4	7678.4	7394.3	7086.8	6806.3	6516.7	6284.8	6113.9	6033.0	6056.4
10°	7966.1	7872.6	7538.1	7112.0	6662.4	6245.2	5788.5	5410.8	5130.3	4982.9	5018.8
12.5°	7980.5	7831.2	7342.1	6759.5	6142.7	5531.3	4858.8	4294.1	3891.3	3743.9	3713.3
15°	7994.9	7784.5	7126.3	6358.5	5515.1	4650.2	3707.9	3031.8	2697.3	2623.6	2607.4
17.5°	7998.5	7703.6	6881.8	5923.3	4779.7	3601.8	2535.5	2105.7	2107.5	2226.2	2240.6
20°	7960.7	7583.1	6585.1	5382.1	3898.5	2490.5	1740.7	1666.9	1938.5	2235.2	2271.2
22.5°	7874.4	7423.0	6248.8	4750.9	2889.7	1640.0	1346.9	1427.8	1778.4	2141.7	2183.0
25°	7764.7	7228.8	5851.4	4019.0	1913.3	1172.4	1129.3	1228.2	1465.5	1708.3	1731.7
27.5°	7615.5	6998.7	5405.4	3181.0	1242.6	965.6	994.4	1060.9	1158.1	1265.9	1276.7
30°	7423.0	6723.5	4928.9	2319.7	938.7	868.5	909.9	945.9	987.2	1048.4	1053.8
32.5°	7201.9	6459.2	4439.8	1602.2	832.6	818.2	850.6	868.5	900.9	938.7	942.3
35°	7016.6	6207.5	3932.7	1132.9	787.6	780.4	802.0	809.2	839.8	881.1	884.7
37.5°	6910.6	6002.5	3409.4	913.5	757.1	746.3	758.8	758.8	802.0	863.1	872.1
40°	6917.7	5889.2	2886.1	825.4	731.9	717.5	719.3	719.3	775.0	841.6	847.0
42.5°	7113.8	5917.9	2422.2	791.2	712.1	695.9	686.9	692.3	739.1	782.2	785.8
45°	7574.1	6121.1	1987.0	769.6	692.3	686.9	667.1	665.3	683.3	703.1	703.1
47.5°	8329.3	6522.1	1692.1	755.3	676.1	674.3	651.0	627.6	625.8	633.0	633.0
50°	9557.5	7212.7	1494.3	739.1	665.3	651.0	624.0	588.0	575.4	580.8	580.8
52.5°	11398.9	8444.4	1418.8	717.5	642.0	618.6	588.0	552.1	541.3	543.1	543.1
55°	13813.9	10336.2	1408.0	692.3	616.8	579.0	553.9	526.9	514.3	517.9	517.9
57.5°	16764.8	12952.6	1600.4	652.8	582.6	539.5	525.1	507.1	498.1	503.5	501.7
60°	20352.2	16376.4	2373.6	611.4	548.5	503.5	503.5	489.1	481.9	487.3	485.5
62.5°	24484.5	20309.1	3337.5	580.8	512.5	474.7	481.9	474.7	467.5	471.1	469.3
65°	28149.3	22871.5	3125.3	557.4	476.5	447.8	460.3	456.7	451.4	454.9	453.2
67.5°	28255.4	21922.1	1755.1	532.3	442.4	420.8	438.8	437.0	433.4	437.0	435.2
70°	25216.4	18510.9	989.0	485.5	406.4	388.4	413.6	411.8	408.2	415.4	413.6
72.5°	20203.0	13432.7	722.9	428.0	370.4	354.2	383.0	381.2	381.2	392.0	386.6
75°	11625.5	6912.4	577.2	366.8	332.7	320.1	345.3	347.1	350.7	365.0	354.2
77.5°	3314.1	2154.3	471.1	311.1	285.9	280.5	305.7	309.3	311.1	327.3	312.9
80°	1231.8	992.6	388.4	260.7	233.8	235.6	258.9	264.3	266.1	282.3	264.3
82.5°	785.8	654.6	314.7	201.4	183.4	181.6	210.4	217.6	217.6	219.4	208.6
85°	458.5	392.0	237.4	145.7	129.5	124.1	156.4	169.0	163.6	160.0	152.8
87.5°	307.5	269.7	145.7	80.9	70.1	66.5	91.7	100.7	97.1	91.7	86.3
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)