

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: P299270

Luminaire Tested: **GLNA-AF-10-LED-E1-SL2-7030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299270
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-10-LED-E1-SL2-7030-600
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 3000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Narrow OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 36650.6 lumens
Efficiency: N/A
Efficacy: 113.5 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

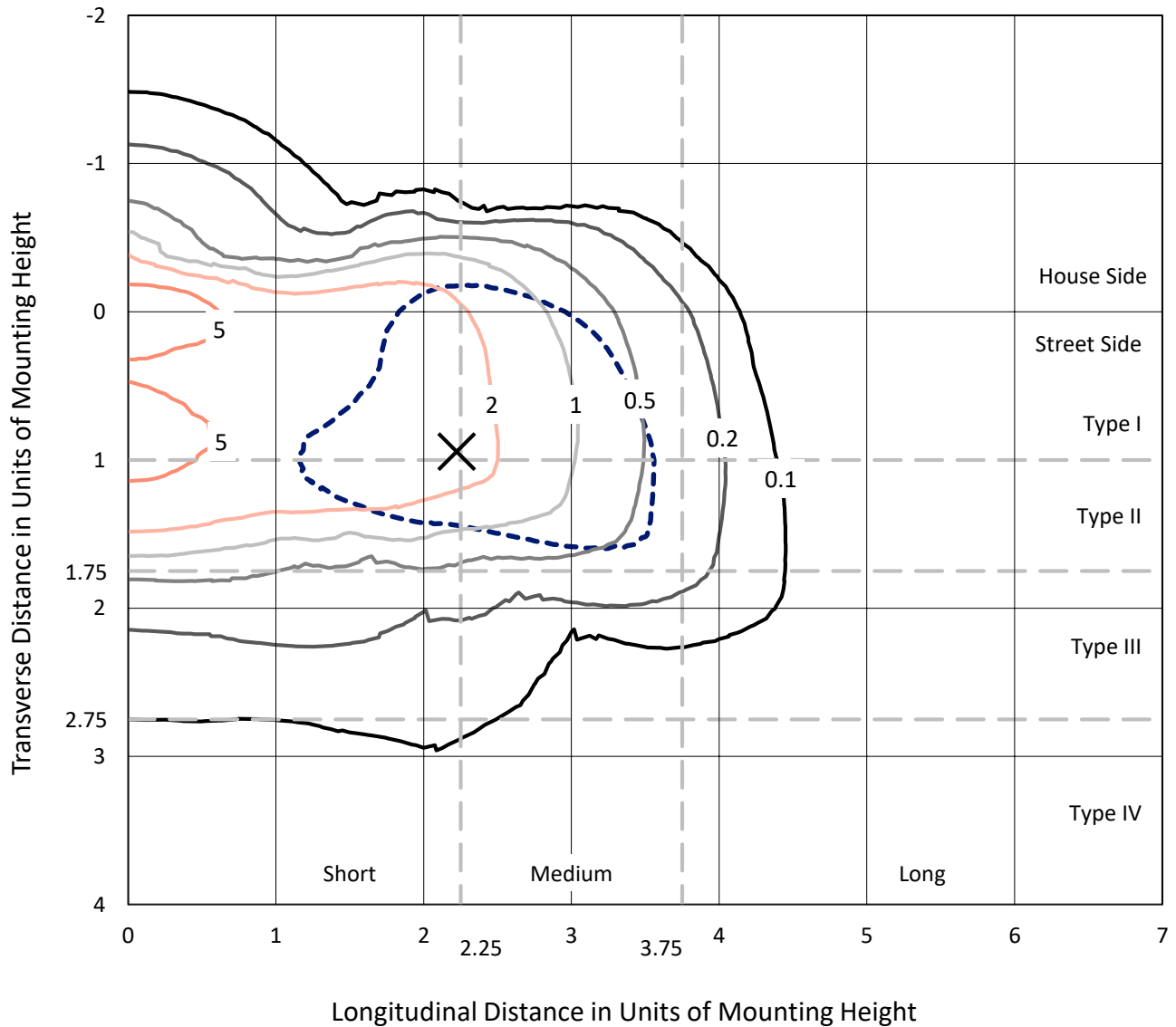
Input Watts (W): 323
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

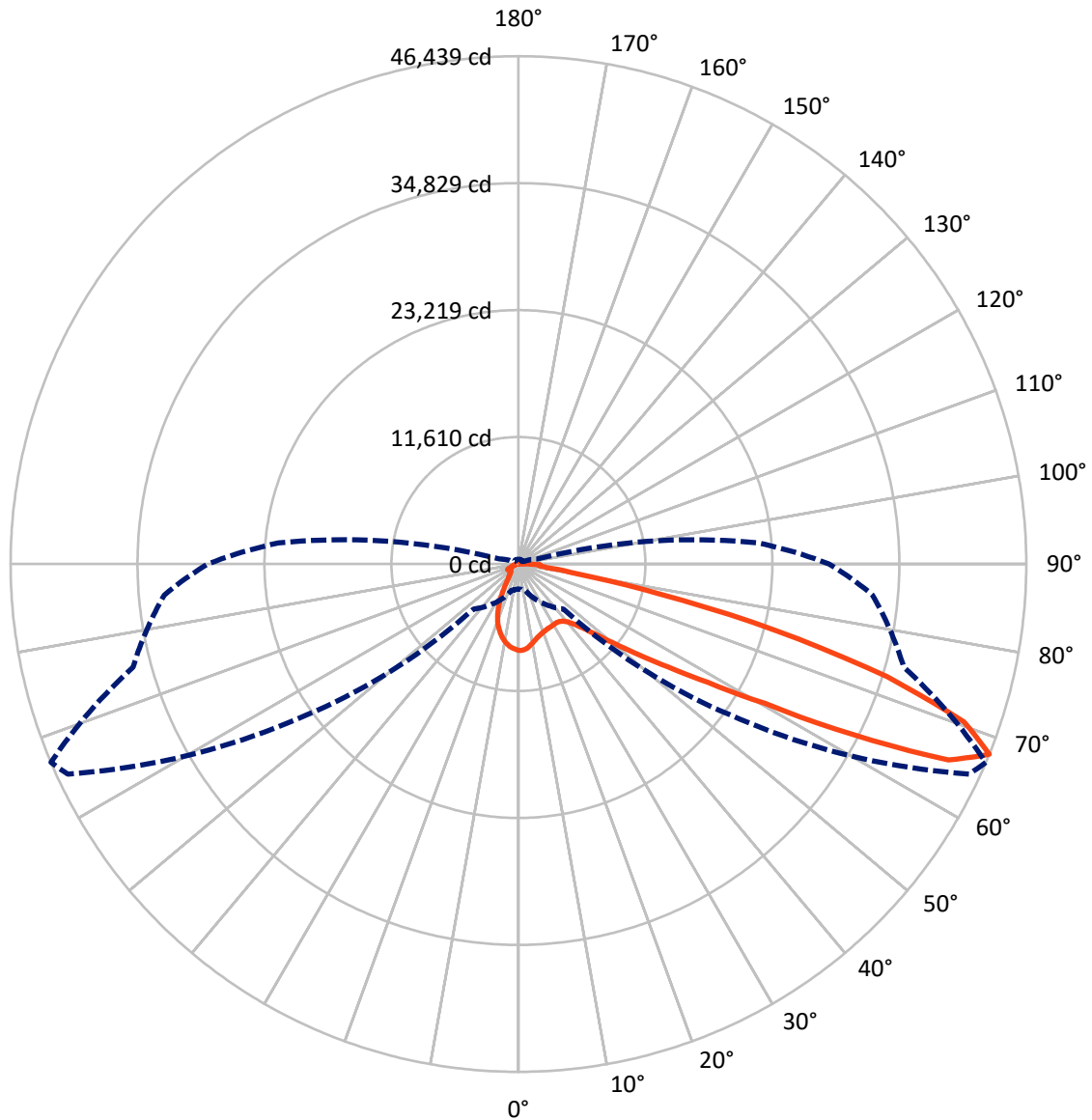
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 8.8 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	6072.6	0.0	6072.6
	% Fixture	16.6	0.0	16.6
Street Side	Lumens	30578.0	0.0	30578.0
	% Fixture	83.4	0.0	83.4
Total	Lumens	36650.6	0.0	36650.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	674.5	1.8
10°-20°	1560.6	4.3
20°-30°	2115.4	5.8
30°-40°	3007.2	8.2
40°-50°	5031.2	13.7
50°-60°	7959.4	21.7
60°-70°	10139.5	27.7
70°-80°	5311.1	14.5
80°-90°	851.8	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°	36650.6	100.0
0°-180°	36650.6	100.0

Coefficient of Utilization



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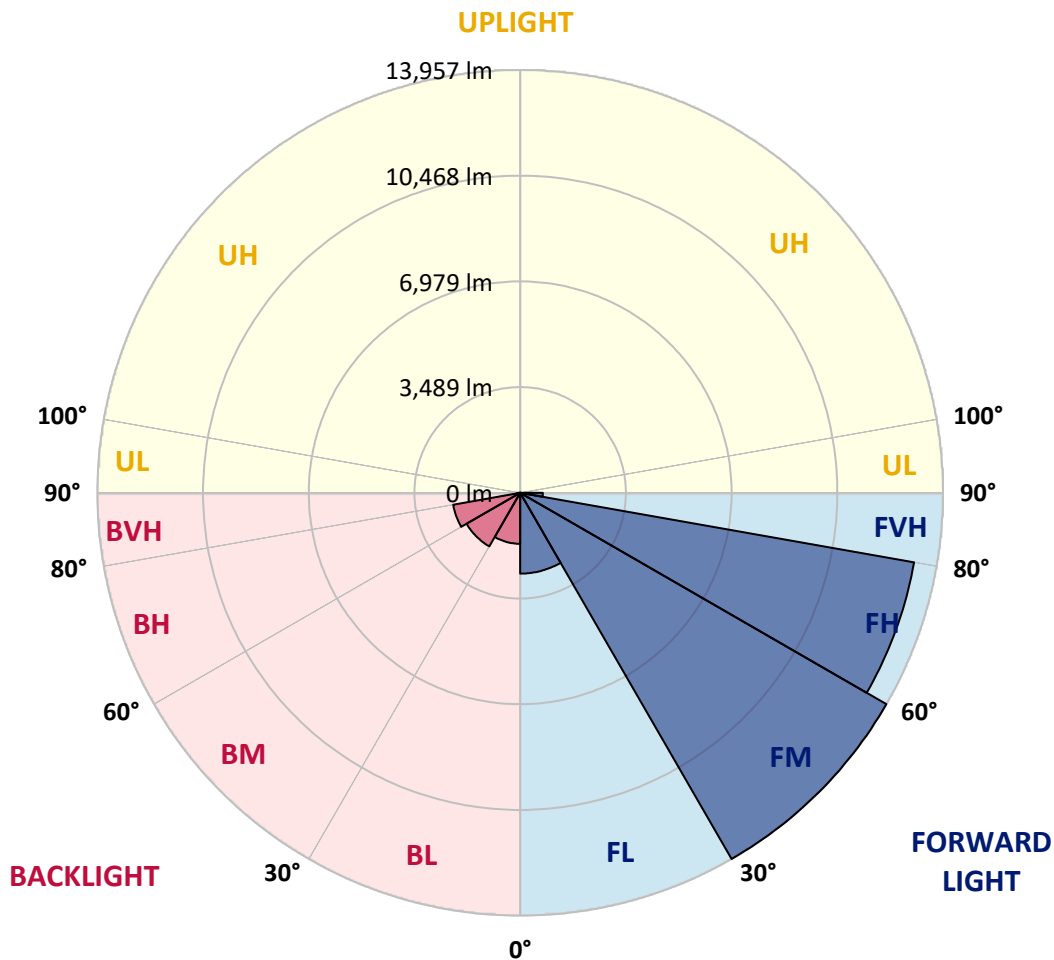
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2667.3	7.3			
FM	(30°-60°)	13957.3	38.1			
FH	(60°-80°)	13204.5	36.0			G5
FVH	(80°-90°)	749.0	2.0			G4/750
BL	(0°-30°)	1683.2	4.6	B3/2500		
BM	(30°-60°)	2040.6	5.6	B2/2500		
BH	(60°-80°)	2246.1	6.1	B3/2500		G3/2500
BVH	(80°-90°)	102.8	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°	7905.5	7905.5	7905.5	7905.5	7905.5	7905.5	7905.5	7905.5	7905.5	7905.5	7905.5
2.5°	7580.1	7592.8	7632.5	7657.8	7771.7	7820.5	7854.8	7889.2	7894.6	7910.9	7894.6
5°	6784.9	6812.0	6886.1	6969.2	7189.7	7363.2	7545.8	7735.6	7769.9	7892.8	7927.1
7.5°	6168.6	6161.3	6222.8	6322.2	6548.1	6788.5	7108.4	7486.1	7560.2	7836.8	7970.5
10°	5718.5	5713.1	5778.2	5881.2	6096.3	6324.0	6685.5	7202.4	7307.2	7748.2	8012.1
12.5°	5386.0	5387.8	5452.8	5566.7	5785.4	6014.9	6381.8	6927.7	7061.4	7645.2	8055.5
15°	5165.5	5179.9	5232.3	5353.4	5566.7	5796.2	6155.9	6721.6	6871.6	7563.9	8104.3
17.5°	5091.4	5114.9	5132.9	5221.5	5404.0	5633.6	5986.0	6569.8	6728.9	7507.8	8147.6
20°	5160.1	5187.2	5152.8	5183.5	5299.2	5501.6	5852.3	6450.5	6613.2	7444.6	8153.1
22.5°	5454.7	5480.0	5378.7	5290.2	5283.0	5405.9	5742.0	6356.5	6524.6	7397.6	8154.9
25°	5973.4	5989.6	5819.7	5613.7	5413.1	5371.5	5664.3	6291.5	6470.4	7356.0	8120.5
27.5°	6609.6	6622.2	6427.0	6123.4	5720.3	5452.8	5637.2	6253.5	6439.7	7319.9	8062.7
30°	7383.1	7442.8	7180.7	6797.5	6210.1	5693.2	5691.4	6233.6	6405.3	7258.4	7948.8
32.5°	8174.8	8200.1	8019.3	7630.7	6869.8	6116.2	5843.2	6248.1	6396.3	7184.3	7804.2
35°	8977.2	9009.8	8892.3	8579.6	7771.7	6736.1	6139.6	6333.0	6452.3	7159.0	7703.0
37.5°	10016.5	10059.8	9897.2	9535.7	8868.8	7576.5	6633.1	6546.3	6624.0	7231.3	7672.3
40°	11659.4	11639.5	11164.1	10625.6	10068.9	8651.9	7337.9	6907.8	6953.0	7464.5	7766.3
42.5°	13571.6	13522.8	12704.0	11858.2	11388.3	9953.2	8270.5	7534.9	7525.9	7923.5	8097.0
45°	15097.0	15057.2	14319.8	13277.0	12901.0	11435.3	9476.1	8469.4	8402.5	8651.9	8707.9
47.5°	15923.0	15924.8	15500.0	14648.8	14639.7	13318.5	11025.0	9821.3	9705.6	9823.1	9763.4
50°	15633.8	15671.7	15626.6	15355.4	16226.6	15787.4	13047.4	11706.4	11473.2	11588.9	11359.3
52.5°	14234.9	14283.7	14551.2	14966.9	16893.5	18771.4	16018.8	14048.7	13777.6	13736.0	13481.2
55°	11755.2	11814.8	12360.6	13490.2	16338.7	20775.8	20707.1	17034.5	16602.5	16210.3	16101.9
57.5°	8102.5	8201.9	9080.2	10757.5	14543.9	21381.2	26290.1	21290.9	20412.5	19042.5	19067.8
60°	4567.2	4682.9	5718.5	7242.1	10922.0	20723.3	30537.4	27737.8	25883.4	22359.0	22547.0
62.5°	2904.4	3029.2	3815.4	5031.7	6553.5	17180.9	32277.9	36700.5	34345.5	26447.3	26631.7
65°	2351.4	2405.6	2776.1	4153.3	4758.8	10350.8	30956.7	44083.7	43205.3	31636.3	30776.0
67.5°	2295.4	2313.4	2505.0	3486.4	4563.6	5817.9	24692.3	45464.5	46438.7	36481.8	32502.0
70°	2268.3	2331.5	2823.1	3327.4	4370.2	4907.0	14838.5	41679.8	43217.9	37748.8	30204.8
72.5°	1100.7	1097.1	1420.6	3009.3	4923.3	5089.6	7623.5	33723.8	35267.3	32704.4	24820.7
75°	887.4	811.5	775.4	1102.5	4733.5	5255.8	4858.2	23204.9	24321.8	21927.1	15257.8
77.5°	842.2	751.9	688.6	690.4	2000.8	5573.9	4115.4	12843.2	13168.5	9904.4	4180.5
80°	697.6	614.5	569.3	641.6	968.8	5308.3	4449.8	5812.5	5333.6	2432.7	1391.7
82.5°	484.4	441.0	428.3	538.6	775.4	3782.8	5174.5	3123.1	2618.9	1218.2	858.5
85°	309.1	263.9	292.8	392.2	603.7	1745.9	5329.9	2434.5	1935.7	773.6	484.4
87.5°	142.8	115.7	144.6	216.9	394.0	601.9	5071.5	2734.6	1993.5	408.5	305.4
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°	7905.5	7905.5	7905.5	7905.5	7905.5	7905.5	7905.5	7905.5	7905.5	7905.5	7905.5
2.5°	7909.1	7874.7	7847.6	7797.0	7741.0	7686.8	7638.0	7576.5	7558.4	7542.2	7567.5
5°	7934.4	7900.0	7800.6	7645.2	7473.5	7312.6	7151.8	7014.4	6929.5	6882.5	6909.6
7.5°	7972.3	7923.5	7717.5	7431.9	7122.9	6840.9	6549.9	6316.8	6145.1	6063.7	6087.2
10°	8006.7	7912.7	7576.5	7148.2	6696.3	6277.0	5817.9	5438.4	5156.4	5008.2	5044.4
12.5°	8021.1	7871.1	7379.5	6793.9	6174.0	5559.5	4883.5	4316.0	3911.2	3763.0	3732.2
15°	8035.6	7824.1	7162.6	6390.9	5543.2	4673.9	3726.8	3047.2	2711.1	2637.0	2620.7
17.5°	8039.2	7742.8	6916.8	5953.5	4804.0	3620.2	2548.4	2116.4	2118.2	2237.5	2252.0
20°	8001.2	7621.7	6618.6	5409.5	3918.4	2503.2	1749.5	1675.4	1948.3	2246.6	2282.7
22.5°	7914.5	7460.8	6280.6	4775.1	2904.4	1648.3	1353.7	1435.1	1787.5	2152.6	2194.2
25°	7804.2	7265.6	5881.2	4039.5	1923.0	1178.4	1135.0	1234.4	1473.0	1717.0	1740.5
27.5°	7654.2	7034.3	5433.0	3197.2	1248.9	970.6	999.5	1066.4	1163.9	1272.4	1283.2
30°	7460.8	6757.8	4954.0	2331.5	943.4	873.0	914.5	950.7	992.2	1053.7	1059.1
32.5°	7238.5	6492.1	4462.4	1610.4	836.8	822.4	854.9	873.0	905.5	943.4	947.1
35°	7052.4	6239.1	3952.7	1138.6	791.6	784.4	806.1	813.3	844.0	885.6	889.2
37.5°	6945.7	6033.0	3426.8	918.1	760.9	750.1	762.7	762.7	806.1	867.5	876.6
40°	6953.0	5919.1	2900.8	829.6	735.6	721.1	722.9	722.9	779.0	845.9	851.3
42.5°	7150.0	5948.1	2434.5	795.2	715.7	699.5	690.4	695.8	742.8	786.2	789.8
45°	7612.7	6152.3	1997.1	773.6	695.8	690.4	670.5	668.7	686.8	706.7	706.7
47.5°	8371.8	6555.3	1700.7	759.1	679.6	677.8	654.3	630.8	629.0	636.2	636.2
50°	9606.2	7249.4	1501.9	742.8	668.7	654.3	627.2	591.0	578.4	583.8	583.8
52.5°	11456.9	8487.4	1426.0	721.1	645.2	621.7	591.0	554.9	544.0	545.8	545.8
55°	13884.2	10388.8	1415.2	695.8	619.9	582.0	556.7	529.6	516.9	520.5	520.5
57.5°	16850.1	13018.5	1608.6	656.1	585.6	542.2	527.8	509.7	500.6	506.1	504.3
60°	20455.9	16459.8	2385.7	614.5	551.2	506.1	506.1	491.6	484.4	489.8	488.0
62.5°	24609.2	20412.5	3354.5	583.8	515.1	477.1	484.4	477.1	469.9	473.5	471.7
65°	28292.6	22988.0	3141.2	560.3	479.0	450.0	462.7	459.1	453.7	457.3	455.5
67.5°	28399.3	22033.7	1764.0	535.0	444.6	422.9	441.0	439.2	435.6	439.2	437.4
70°	25344.8	18605.1	994.1	488.0	408.5	390.4	415.7	413.9	410.3	417.5	415.7
72.5°	20305.8	13501.1	726.6	430.2	372.3	356.1	385.0	383.2	383.2	394.0	388.6
75°	11684.7	6947.5	580.2	368.7	334.4	321.7	347.0	348.8	352.4	366.9	356.1
77.5°	3331.0	2165.2	473.5	312.7	287.4	282.0	307.3	310.9	312.7	328.9	314.5
80°	1238.1	997.7	390.4	262.1	235.0	236.8	260.3	265.7	267.5	283.8	265.7
82.5°	789.8	657.9	316.3	202.4	184.4	182.5	211.5	218.7	218.7	220.5	209.7
85°	460.9	394.0	238.6	146.4	130.1	124.7	157.2	169.9	164.5	160.9	153.6
87.5°	309.1	271.1	146.4	81.3	70.5	66.9	92.2	101.2	97.6	92.2	86.8
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)