

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: P299137

Luminaire Tested: **GLNA-AF-08-LED-E1-SL2-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299137
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-08-LED-E1-SL2-7027
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(8) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Narrow OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 40463.1 lumens
Efficiency: N/A
Efficacy: 90.9 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G5

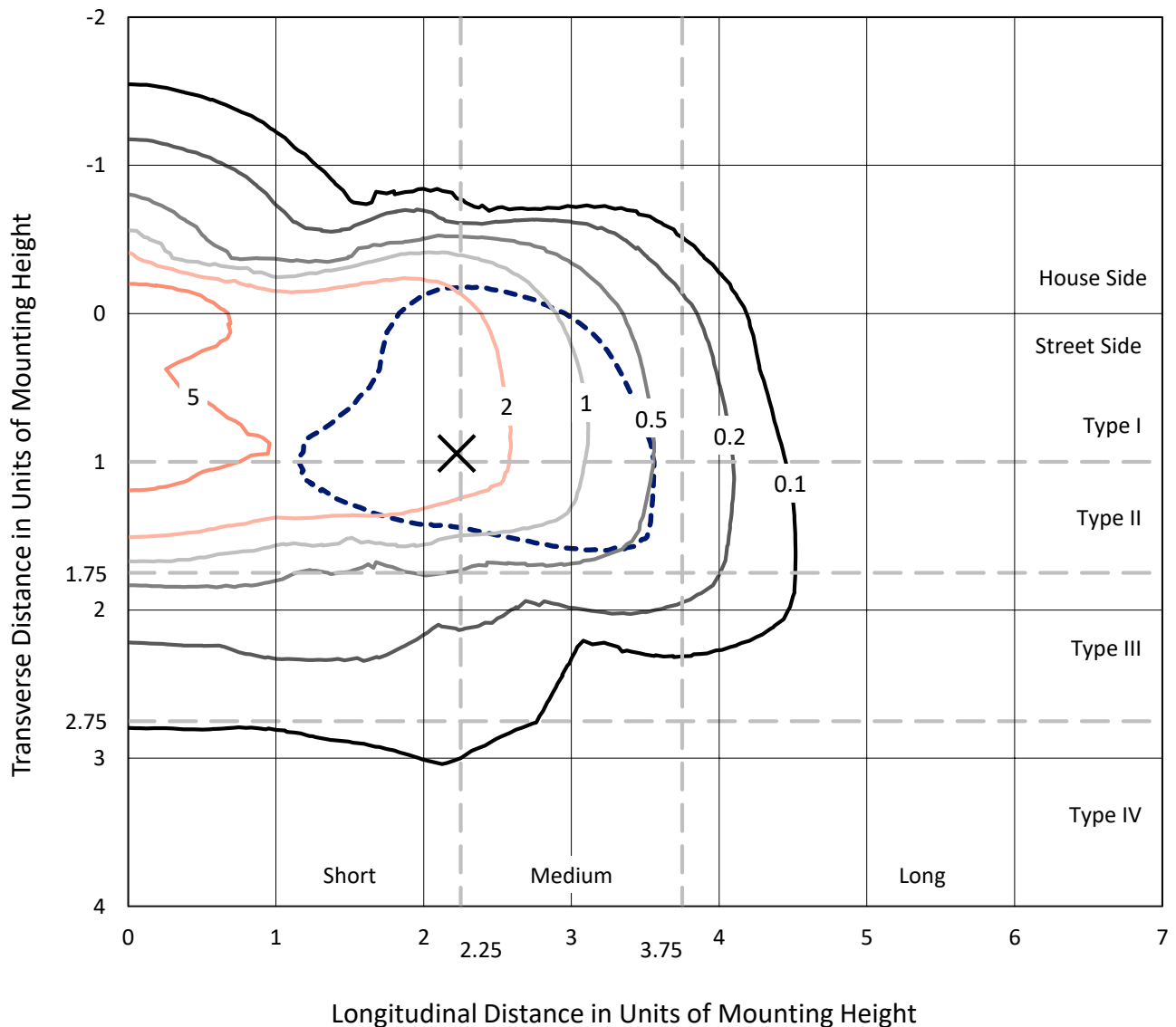
Input Watts (W): 445
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

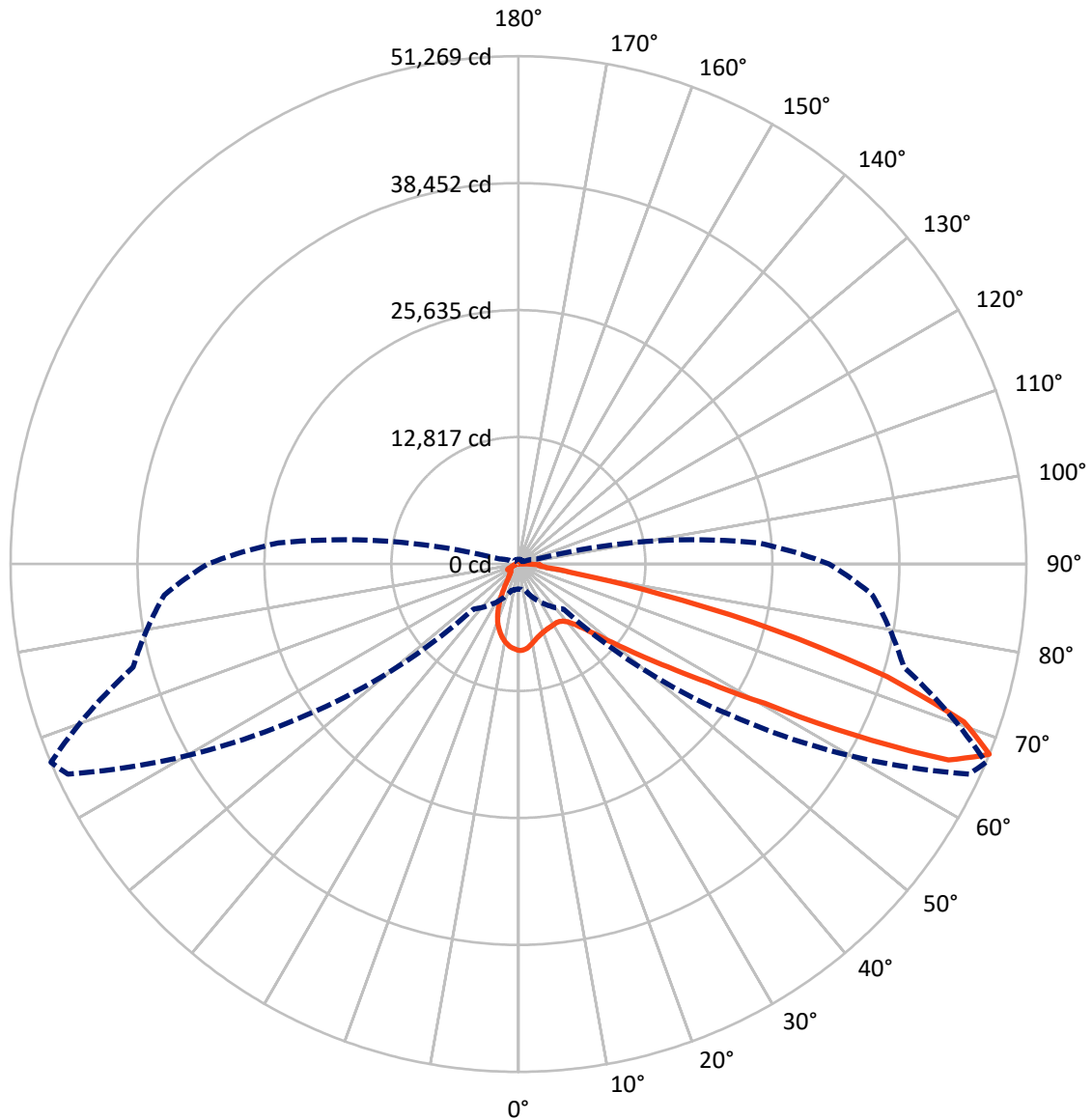
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9.7 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	6704.3	0.0	6704.3
	% Fixture	16.6	0.0	16.6
Street Side	Lumens	33758.8	0.0	33758.8
	% Fixture	83.4	0.0	83.4
Total	Lumens	40463.1	0.0	40463.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	744.6	1.8
10°-20°	1722.9	4.3
20°-30°	2335.4	5.8
30°-40°	3320.1	8.2
40°-50°	5554.6	13.7
50°-60°	8787.4	21.7
60°-70°	11194.2	27.7
70°-80°	5863.5	14.5
80°-90°	940.4	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°	40463.1	100.0
0°-180°	40463.1	100.0



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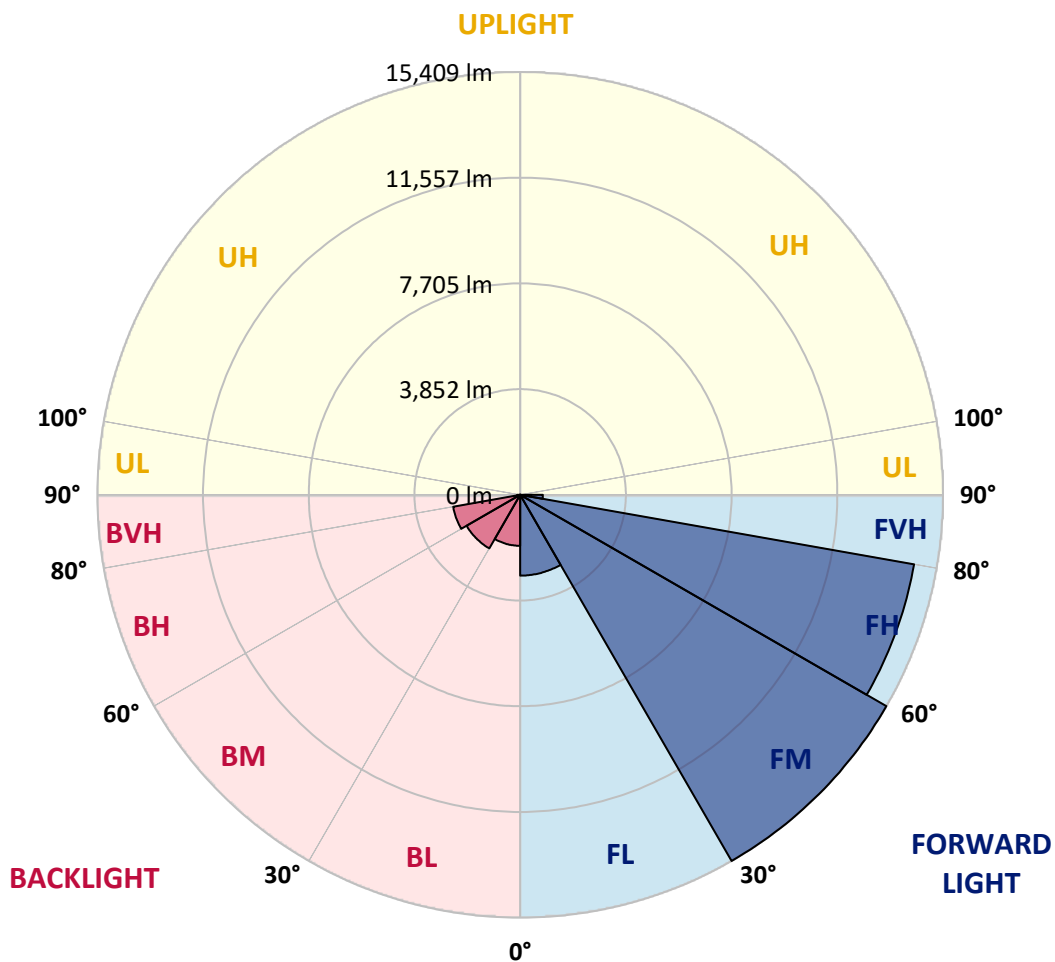
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2944.7	7.3			
FM (30°-60°)	15409.2	38.1			
FH (60°-80°)	14578.0	36.0			G5
FVH (80°-90°)	826.9	2.0			G5
BL (0°-30°)	1858.2	4.6	B3/2500		
BM (30°-60°)	2252.8	5.6	B2/2500		
BH (60°-80°)	2479.7	6.1	B3/2500		G3/2500
BVH (80°-90°)	113.5	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°	8727.8	8727.8	8727.8	8727.8	8727.8	8727.8	8727.8	8727.8	8727.8	8727.8	8727.8
2.5°	8368.6	8382.6	8426.5	8454.4	8580.1	8634.0	8671.9	8709.8	8715.8	8733.8	8715.8
5°	7490.7	7520.6	7602.4	7694.2	7937.6	8129.2	8330.7	8540.2	8578.1	8713.8	8751.7
7.5°	6810.2	6802.3	6870.1	6979.8	7229.3	7494.6	7847.8	8264.9	8346.7	8652.0	8799.6
10°	6313.4	6307.4	6379.2	6493.0	6730.4	6981.8	7380.9	7951.6	8067.3	8554.2	8845.5
12.5°	5946.2	5948.2	6020.1	6145.8	6387.2	6640.6	7045.7	7648.3	7796.0	8440.5	8893.4
15°	5702.8	5718.8	5776.6	5910.3	6145.8	6399.2	6796.3	7420.8	7586.4	8350.7	8947.3
17.5°	5621.0	5646.9	5666.9	5764.7	5966.2	6219.6	6608.7	7253.2	7428.8	8288.8	8995.2
20°	5696.8	5726.7	5688.8	5722.8	5850.5	6073.9	6461.0	7121.5	7301.1	8219.0	9001.2
22.5°	6022.1	6050.0	5938.3	5840.5	5832.5	5968.2	6339.3	7017.8	7203.3	8167.1	9003.2
25°	6594.7	6612.7	6425.1	6197.7	5976.2	5930.3	6253.5	6945.9	7143.5	8121.2	8965.2
27.5°	7297.1	7311.1	7095.6	6760.3	6315.4	6020.1	6223.6	6904.0	7109.5	8081.3	8901.4
30°	8151.1	8217.0	7927.6	7504.6	6856.1	6285.4	6283.5	6882.1	7071.6	8013.4	8775.7
32.5°	9025.1	9053.0	8853.5	8424.5	7584.4	6752.4	6451.1	6898.0	7061.7	7931.6	8616.1
35°	9911.1	9947.0	9817.3	9472.1	8580.1	7436.8	6778.3	6991.8	7123.5	7903.7	8504.3
37.5°	11058.4	11106.3	10926.7	10527.6	9791.3	8364.6	7323.0	7227.3	7313.1	7983.5	8470.4
40°	12872.2	12850.2	12325.5	11730.8	11116.3	9551.9	8101.2	7626.3	7676.2	8240.9	8574.1
42.5°	14983.3	14929.4	14025.5	13091.7	12572.9	10988.6	9130.9	8318.7	8308.8	8747.7	8939.3
45°	16667.4	16623.5	15809.4	14658.1	14243.0	12624.8	10461.8	9350.4	9276.5	9551.9	9613.7
47.5°	17579.3	17581.3	17112.4	16172.6	16162.6	14704.0	12171.8	10842.9	10715.2	10844.9	10779.0
50°	17260.0	17301.9	17252.1	16952.8	17914.5	17429.6	14404.7	12924.1	12666.7	12794.4	12541.0
52.5°	15715.6	15769.5	16064.8	16523.7	18650.8	20724.0	17685.1	15510.1	15210.8	15164.9	14883.5
55°	12978.0	13043.8	13646.4	14893.5	18038.2	22936.9	22861.1	18806.5	18329.6	17896.6	17776.8
57.5°	8945.3	9055.0	10024.8	11876.5	16056.8	23605.3	29024.8	23505.6	22535.8	21023.3	21051.3
60°	5042.3	5170.0	6313.4	7995.5	12058.1	22879.0	33713.9	30623.1	28575.8	24684.8	24892.4
62.5°	3206.6	3344.3	4212.2	5555.1	7235.2	18968.1	35635.5	40518.2	37918.2	29198.4	29401.9
65°	2596.0	2655.9	3064.9	4585.4	5253.8	11427.5	34176.9	48669.3	47699.6	34927.1	33977.3
67.5°	2534.1	2554.1	2765.6	3849.1	5038.3	6423.1	27260.9	50193.8	51269.3	40276.8	35882.9
70°	2504.2	2574.0	3116.8	3673.5	4824.8	5417.5	16382.1	46015.5	47713.5	41675.5	33346.8
72.5°	1215.2	1211.2	1568.4	3322.3	5435.4	5619.0	8416.5	37231.8	38935.9	36106.4	27402.6
75°	979.7	895.9	856.0	1217.2	5225.9	5802.6	5363.6	25618.7	26851.8	24208.0	16845.0
77.5°	929.8	830.1	760.2	762.2	2208.9	6153.8	4543.5	14179.2	14538.3	10934.7	4615.3
80°	770.2	678.4	628.5	708.4	1069.5	5860.4	4912.6	6417.1	5888.4	2685.8	1536.4
82.5°	534.8	486.9	472.9	594.6	856.0	4176.3	5712.8	3448.0	2891.3	1344.9	947.8
85°	341.2	291.3	323.3	433.0	666.5	1927.5	5884.4	2687.8	2137.1	854.0	534.8
87.5°	157.6	127.7	159.6	239.4	435.0	664.5	5599.0	3019.0	2200.9	451.0	337.2
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	8727.8	8727.8	8727.8	8727.8	8727.8	8727.8	8727.8	8727.8	8727.8	8727.8	8727.8
2.5°	8731.8	8693.9	8663.9	8608.1	8546.2	8486.4	8432.5	8364.6	8344.7	8326.7	8354.7
5°	8759.7	8721.8	8612.1	8440.5	8250.9	8073.3	7895.7	7744.1	7650.3	7598.4	7628.3
7.5°	8801.6	8747.7	8520.3	8205.0	7863.8	7552.5	7231.3	6973.9	6784.3	6694.5	6720.4
10°	8839.5	8735.8	8364.6	7891.7	7392.9	6930.0	6423.1	6004.1	5692.8	5529.2	5569.1
12.5°	8855.5	8689.9	8147.1	7500.6	6816.2	6137.8	5391.5	4765.0	4318.0	4154.4	4120.5
15°	8871.5	8638.0	7907.7	7055.7	6119.8	5160.1	4114.5	3364.2	2993.1	2911.3	2893.3
17.5°	8875.5	8548.2	7636.3	6572.8	5303.7	3996.7	2813.5	2336.6	2338.6	2470.3	2486.2
20°	8833.5	8414.5	7307.1	5972.2	4326.0	2763.6	1931.5	1849.7	2151.0	2480.3	2520.2
22.5°	8737.8	8236.9	6933.9	5271.8	3206.6	1819.8	1494.5	1584.3	1973.4	2376.5	2422.4
25°	8616.1	8021.4	6493.0	4459.7	2123.1	1301.0	1253.1	1362.8	1626.2	1895.6	1921.6
27.5°	8450.4	7766.0	5998.1	3529.8	1378.8	1071.5	1103.4	1177.3	1285.0	1404.7	1416.7
30°	8236.9	7460.7	5469.3	2574.0	1041.6	963.8	1009.7	1049.6	1095.5	1163.3	1169.3
32.5°	7991.5	7167.4	4926.6	1777.9	923.9	907.9	943.8	963.8	999.7	1041.6	1045.6
35°	7786.0	6888.1	4363.9	1257.1	874.0	866.0	889.9	897.9	931.8	977.7	981.7
37.5°	7668.2	6660.6	3783.2	1013.7	840.1	828.1	842.1	842.1	889.9	957.8	967.8
40°	7676.2	6534.9	3202.6	915.9	812.1	796.2	798.2	798.2	860.0	933.8	939.8
42.5°	7893.7	6566.8	2687.8	878.0	790.2	772.2	762.2	768.2	820.1	868.0	872.0
45°	8404.5	6792.3	2204.9	854.0	768.2	762.2	740.3	738.3	758.2	780.2	780.2
47.5°	9242.6	7237.2	1877.7	838.1	750.3	748.3	722.3	696.4	694.4	702.4	702.4
50°	10605.4	8003.5	1658.2	820.1	738.3	722.3	692.4	652.5	638.5	644.5	644.5
52.5°	12648.7	9370.3	1574.4	796.2	712.4	686.4	652.5	612.6	600.6	602.6	602.6
55°	15328.5	11469.4	1562.4	768.2	684.4	642.5	614.6	584.6	570.7	574.7	574.7
57.5°	18602.9	14372.7	1775.9	724.3	646.5	598.6	582.7	562.7	552.7	558.7	556.7
60°	22583.7	18171.9	2633.9	678.4	608.6	558.7	558.7	542.7	534.8	540.7	538.8
62.5°	27169.1	22535.8	3703.4	644.5	568.7	526.8	534.8	526.8	518.8	522.8	520.8
65°	31235.7	25379.2	3468.0	618.6	528.8	496.8	510.8	506.8	500.8	504.8	502.8
67.5°	31353.4	24325.7	1947.5	590.6	490.9	466.9	486.9	484.9	480.9	484.9	482.9
70°	27981.2	20540.4	1097.5	538.8	451.0	431.0	458.9	456.9	453.0	460.9	458.9
72.5°	22418.1	14905.5	802.1	474.9	411.0	393.1	425.0	423.0	423.0	435.0	429.0
75°	12900.1	7670.2	640.5	407.1	369.1	355.2	383.1	385.1	389.1	405.1	393.1
77.5°	3677.5	2390.5	522.8	345.2	317.3	311.3	339.2	343.2	345.2	363.2	347.2
80°	1366.8	1101.4	431.0	289.3	259.4	261.4	287.3	293.3	295.3	313.3	293.3
82.5°	872.0	726.3	349.2	223.5	203.5	201.5	233.5	241.4	241.4	243.4	231.5
85°	508.8	435.0	263.4	161.6	143.7	137.7	173.6	187.6	181.6	177.6	169.6
87.5°	341.2	299.3	161.6	89.8	77.8	73.8	101.8	111.7	107.8	101.8	95.8
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)