

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: P299146

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299146
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
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Narrow OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 51950.5 lumens
Efficiency: N/A
Efficacy: 103.7 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-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

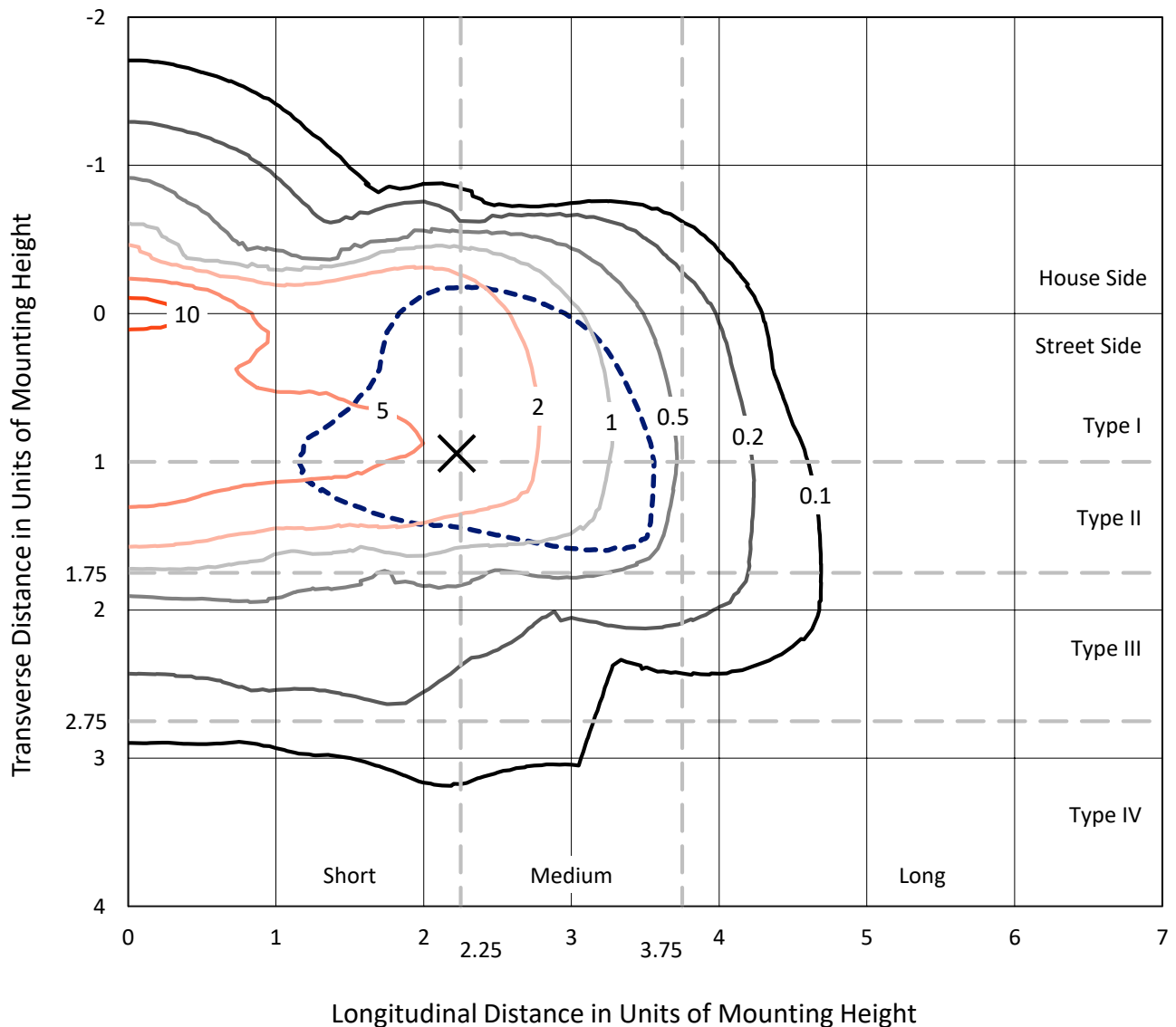


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

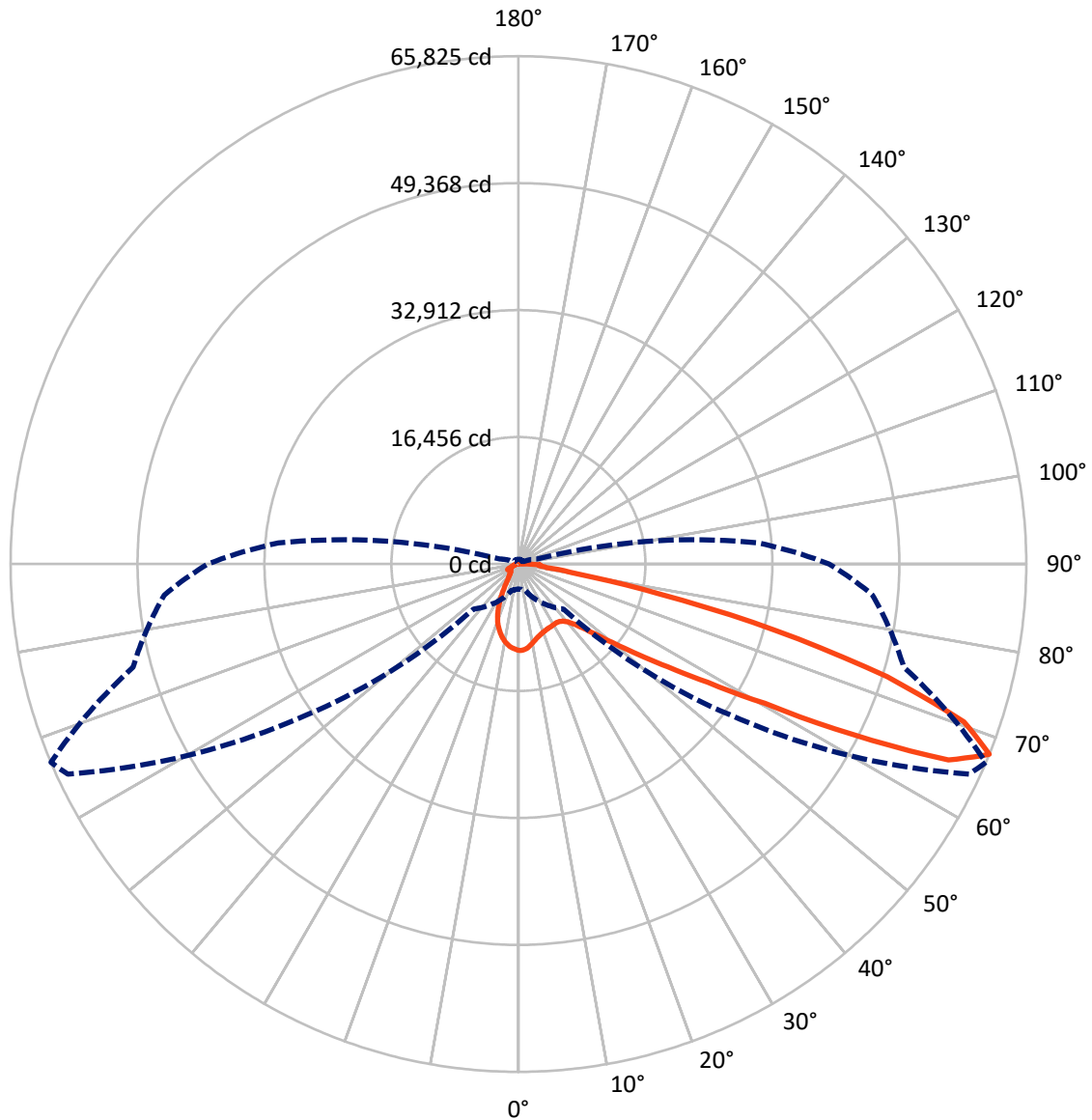


Based on 30 foot mounting height. Maximum calculated value = 12.5 fc
 Type II - Short - Semi-Cutoff

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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	8607.6	0.0	8607.6
	% Fixture	16.6	0.0	16.6
Street Side	Lumens	43342.9	0.0	43342.9
	% Fixture	83.4	0.0	83.4
Total	Lumens	51950.5	0.0	51950.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	956.0	1.8
10°-20°	2212.0	4.3
20°-30°	2998.5	5.8
30°-40°	4262.6	8.2
40°-50°	7131.5	13.7
50°-60°	11282.1	21.7
60°-70°	14372.2	27.7
70°-80°	7528.1	14.5
80°-90°	1207.4	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°	51950.5	100.0
0°-180°	51950.5	100.0



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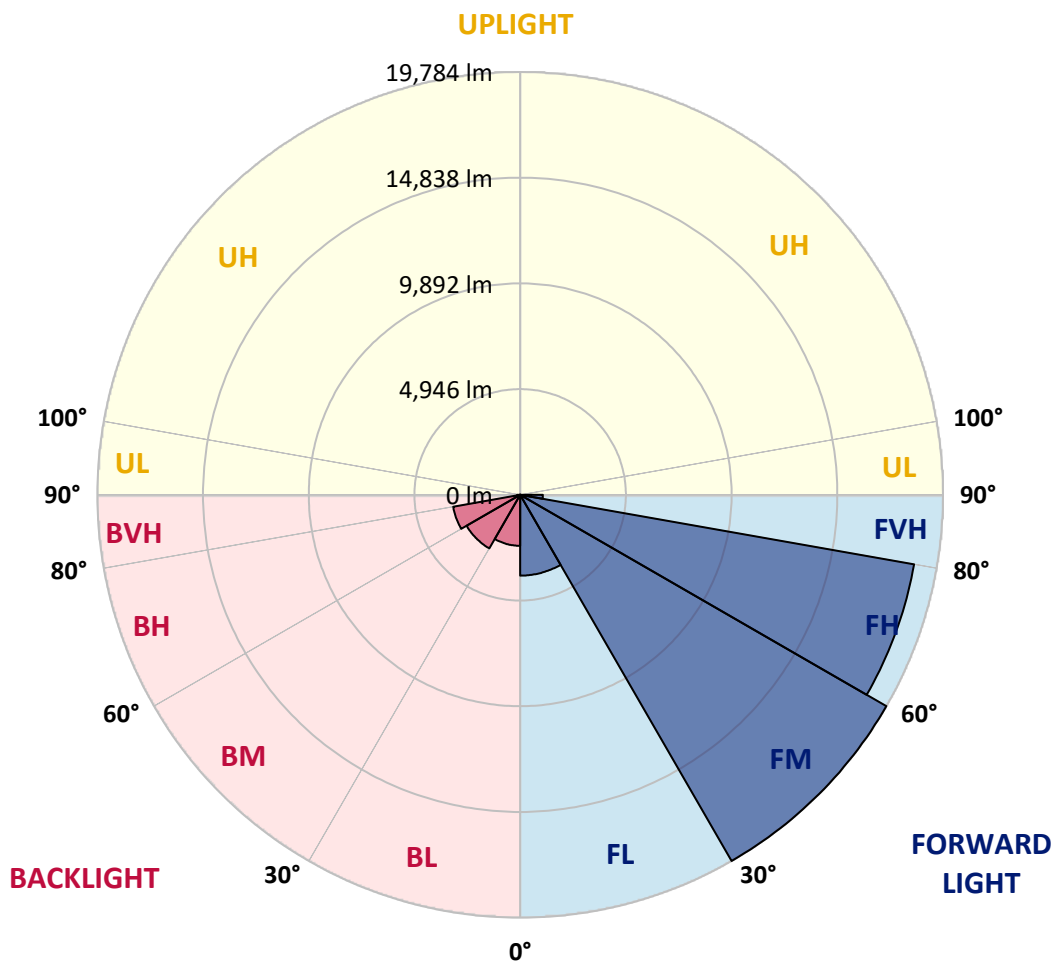
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3780.7	7.3			
FM (30°-60°)	19783.8	38.1			
FH (60°-80°)	18716.7	36.0			G5
FVH (80°-90°)	1061.7	2.0			G5
BL (0°-30°)	2385.8	4.6	B3/2500		
BM (30°-60°)	2892.4	5.6	B3/5000		
BH (60°-80°)	3183.7	6.1	B4/5000		G4/5000
BVH (80°-90°)	145.7	0.3			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	11205.6	11205.6	11205.6	11205.6	11205.6	11205.6	11205.6	11205.6	11205.6	11205.6	11205.6
2.5°	10744.5	10762.4	10818.7	10854.6	11016.0	11085.2	11133.9	11182.5	11190.2	11213.3	11190.2
5°	9617.2	9655.7	9760.7	9878.5	10191.1	10437.0	10695.8	10964.8	11013.4	11187.7	11236.3
7.5°	8743.6	8733.4	8820.5	8961.4	9281.6	9622.4	10075.8	10611.2	10716.3	11108.2	11297.8
10°	8105.7	8098.0	8190.3	8336.3	8641.2	8964.0	9476.3	10209.0	10357.6	10982.7	11356.7
12.5°	7634.4	7636.9	7729.1	7890.5	8200.5	8525.9	9045.9	9819.6	10009.2	10836.7	11418.2
15°	7321.8	7342.3	7416.6	7588.2	7890.5	8215.9	8725.7	9527.6	9740.2	10721.4	11487.4
17.5°	7216.8	7250.1	7275.7	7401.2	7660.0	7985.3	8484.9	9312.4	9537.8	10642.0	11548.9
20°	7314.1	7352.5	7303.9	7347.4	7511.4	7798.3	8295.3	9143.3	9373.9	10552.3	11556.6
22.5°	7731.7	7767.6	7624.1	7498.6	7488.3	7662.5	8139.0	9010.1	9248.3	10485.7	11559.1
25°	8467.0	8490.0	8249.2	7957.1	7672.8	7613.9	8028.9	8917.8	9171.5	10426.8	11510.5
27.5°	9368.7	9386.7	9110.0	8679.6	8108.3	7729.1	7990.5	8864.0	9127.9	10375.5	11428.5
30°	10465.2	10549.8	10178.3	9635.2	8802.6	8069.9	8067.3	8835.9	9079.2	10288.4	11267.1
32.5°	11587.3	11623.2	11367.0	10816.2	9737.6	8669.3	8282.5	8856.4	9066.4	10183.4	11062.1
35°	12724.8	12770.9	12604.4	12161.2	11016.0	9548.1	8702.6	8976.8	9145.9	10147.5	10918.7
37.5°	14197.8	14259.3	14028.8	13516.4	12571.1	10739.3	9402.0	9279.1	9389.2	10250.0	10875.1
40°	16526.6	16498.4	15824.6	15061.2	14272.1	12263.6	10401.2	9791.4	9855.5	10580.5	11008.3
42.5°	19237.0	19167.9	18007.3	16808.4	16142.3	14108.2	11723.1	10680.4	10667.6	11231.2	11477.1
45°	21399.2	21342.9	20297.6	18819.4	18286.6	16208.9	13431.8	12004.9	11910.1	12263.6	12343.1
47.5°	22570.0	22572.6	21970.5	20763.9	20751.1	18878.4	15627.4	13921.2	13757.2	13923.7	13839.2
50°	22160.1	22213.9	22149.9	21765.6	23000.4	22377.9	18494.1	16593.2	16262.7	16426.7	16101.3
52.5°	20177.2	20246.4	20625.6	21214.8	23945.7	26607.5	22705.8	19913.4	19529.1	19470.2	19108.9
55°	16662.4	16746.9	17520.6	19121.7	23159.2	29448.6	29351.3	24145.6	23533.3	22977.4	22823.6
57.5°	11484.8	11625.7	12870.8	15248.2	20615.3	30306.8	37264.9	30178.7	28933.7	26991.8	27027.7
60°	6473.8	6637.8	8105.7	10265.4	15481.3	29374.3	43285.2	39316.9	36688.4	31692.8	31959.2
62.5°	4116.9	4293.7	5408.1	7132.2	9289.3	24353.1	45752.3	52021.2	48683.1	37487.7	37749.1
65°	3333.0	3409.8	3935.0	5887.2	6745.4	14671.8	43879.6	62486.4	61241.3	44842.9	43623.4
67.5°	3253.6	3279.2	3550.7	4941.8	6468.7	8246.6	35000.2	64443.7	65824.5	51711.2	46070.0
70°	3215.1	3304.8	4001.6	4716.4	6194.6	6955.5	21032.9	59079.1	61259.3	53507.1	42813.9
72.5°	1560.2	1555.1	2013.6	4265.5	6978.5	7214.2	10805.9	47801.8	49989.6	46356.9	35182.1
75°	1257.9	1150.3	1099.0	1562.7	6709.5	7449.9	6886.3	32891.8	34475.0	31080.5	21627.2
77.5°	1193.8	1065.7	976.1	978.6	2836.0	7900.8	5833.4	18204.6	18665.7	14039.0	5925.6
80°	988.9	871.0	807.0	909.5	1373.2	7524.2	6307.3	8239.0	7560.1	3448.3	1972.6
82.5°	686.6	625.1	607.2	763.4	1099.0	5362.0	7334.6	4426.9	3712.1	1726.7	1216.9
85°	438.1	374.0	415.0	555.9	855.7	2474.8	7554.9	3450.8	2743.8	1096.5	686.6
87.5°	202.4	164.0	204.9	307.4	558.5	853.1	7188.6	3876.1	2825.7	579.0	433.0
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°	11205.6	11205.6	11205.6	11205.6	11205.6	11205.6	11205.6	11205.6	11205.6	11205.6	11205.6
2.5°	11210.7	11162.0	11123.6	11051.9	10972.5	10895.6	10826.4	10739.3	10713.7	10690.7	10726.5
5°	11246.6	11197.9	11057.0	10836.7	10593.3	10365.3	10137.3	9942.6	9822.2	9755.6	9794.0
7.5°	11300.4	11231.2	10939.2	10534.4	10096.3	9696.7	9284.2	8953.7	8710.3	8595.1	8628.4
10°	11349.1	11215.8	10739.3	10132.2	9491.7	8897.4	8246.6	7708.6	7309.0	7098.9	7150.2
12.5°	11369.5	11156.9	10460.1	9630.0	8751.3	7880.3	6922.2	6117.7	5543.9	5333.8	5290.2
15°	11390.0	11090.3	10152.7	9058.7	7857.2	6625.0	5282.6	4319.3	3842.8	3737.8	3714.7
17.5°	11395.2	10975.0	9804.3	8438.8	6809.4	5131.4	3612.2	2999.9	3002.5	3171.6	3192.1
20°	11341.4	10803.4	9381.5	7667.7	5554.1	3548.2	2479.9	2374.8	2761.7	3184.4	3235.6
22.5°	11218.4	10575.4	8902.5	6768.4	4116.9	2336.4	1918.8	2034.1	2533.7	3051.2	3110.1
25°	11062.1	10298.7	8336.3	5725.8	2725.8	1670.3	1608.9	1749.8	2087.9	2433.8	2467.1
27.5°	10849.5	9970.8	7701.0	4531.9	1770.2	1375.7	1416.7	1511.5	1649.8	1803.6	1818.9
30°	10575.4	9578.8	7022.1	3304.8	1337.3	1237.4	1296.3	1347.5	1406.5	1493.6	1501.3
32.5°	10260.3	9202.2	6325.2	2282.6	1186.1	1165.6	1211.8	1237.4	1283.5	1337.3	1342.4
35°	9996.4	8843.6	5602.8	1614.0	1122.1	1111.8	1142.6	1152.8	1196.4	1255.3	1260.4
37.5°	9845.2	8551.5	4857.3	1301.4	1078.5	1063.2	1081.1	1081.1	1142.6	1229.7	1242.5
40°	9855.5	8390.1	4111.8	1175.9	1042.7	1022.2	1024.7	1024.7	1104.2	1199.0	1206.6
42.5°	10134.7	8431.1	3450.8	1127.2	1014.5	991.4	978.6	986.3	1052.9	1114.4	1119.5
45°	10790.6	8720.6	2830.9	1096.5	986.3	978.6	950.5	947.9	973.5	1001.7	1001.7
47.5°	11866.5	9291.9	2410.7	1076.0	963.3	960.7	927.4	894.1	891.5	901.8	901.8
50°	13616.3	10275.6	2128.9	1052.9	947.9	927.4	889.0	837.7	819.8	827.5	827.5
52.5°	16239.7	12030.5	2021.3	1022.2	914.6	881.3	837.7	786.5	771.1	773.7	773.7
55°	19680.2	14725.6	2005.9	986.3	878.7	824.9	789.1	750.6	732.7	737.8	737.8
57.5°	23884.2	18453.1	2280.1	930.0	830.0	768.6	748.1	722.4	709.6	717.3	714.8
60°	28995.2	23330.9	3381.7	871.0	781.4	717.3	717.3	696.8	686.6	694.3	691.7
62.5°	34882.3	28933.7	4754.8	827.5	730.1	676.3	686.6	676.3	666.1	671.2	668.6
65°	40103.4	32584.3	4452.5	794.2	678.9	637.9	655.8	650.7	643.0	648.2	645.6
67.5°	40254.6	31231.7	2500.4	758.3	630.2	599.5	625.1	622.5	617.4	622.5	620.0
70°	35925.0	26371.8	1409.0	691.7	579.0	553.4	589.2	586.7	581.5	591.8	589.2
72.5°	28782.5	19137.1	1029.9	609.7	527.7	504.7	545.7	543.1	543.1	558.5	550.8
75°	16562.4	9847.8	822.4	522.6	473.9	456.0	491.9	494.4	499.6	520.1	504.7
77.5°	4721.5	3069.1	671.2	443.2	407.3	399.7	435.5	440.6	443.2	466.3	445.8
80°	1754.9	1414.1	553.4	371.5	333.0	335.6	368.9	376.6	379.2	402.2	376.6
82.5°	1119.5	932.5	448.3	286.9	261.3	258.7	299.7	310.0	310.0	312.5	297.2
85°	653.3	558.5	338.2	207.5	184.5	176.8	222.9	240.8	233.1	228.0	217.8
87.5°	438.1	384.3	207.5	115.3	99.9	94.8	130.7	143.5	138.3	130.7	123.0
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)