

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: P299929

Luminaire Tested: **GLNA-AF-10-LED-E1-SL3-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299929
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24288)
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-SL3-7027-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Square Medium OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 41215.3 lumens
Efficiency: N/A
Efficacy: 98.4 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B3 - U0 - G5

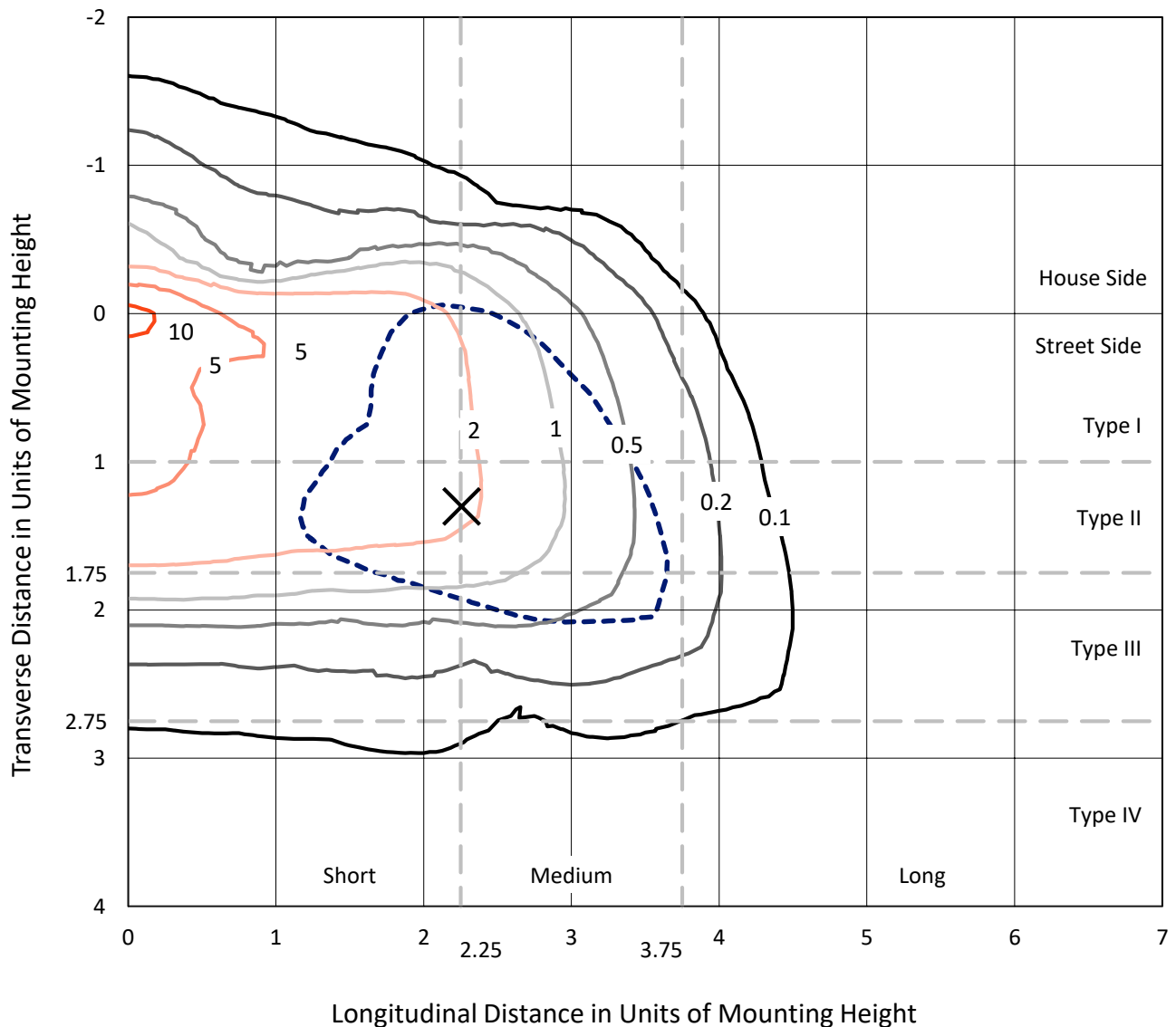
Input Watts (W): 419
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

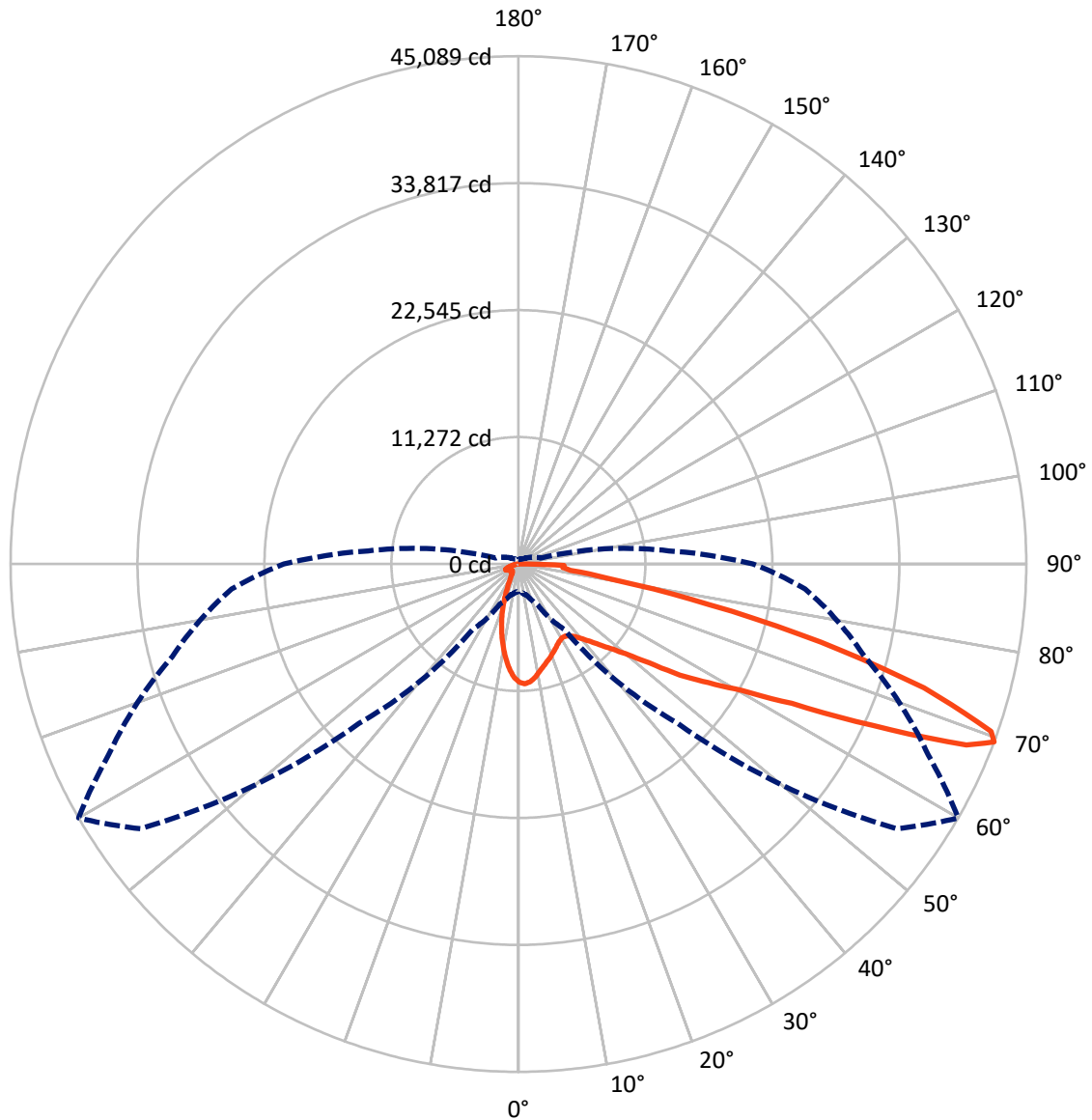
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 11.7 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5863.6	0.0	5863.6
	% Fixture	14.2	0.0	14.2
Street Side	Lumens	35351.6	0.0	35351.6
	% Fixture	85.8	0.0	85.8
Total	Lumens	41215.3	0.0	41215.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	888.0	2.2
10°-20°	1892.0	4.6
20°-30°	2410.7	5.8
30°-40°	3314.1	8.0
40°-50°	5377.4	13.0
50°-60°	8624.0	20.9
60°-70°	11477.9	27.8
70°-80°	6197.2	15.0
80°-90°	1034.0	2.5
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°	41215.3	100.0
0°-180°	41215.3	100.0

Coefficient of Utilization



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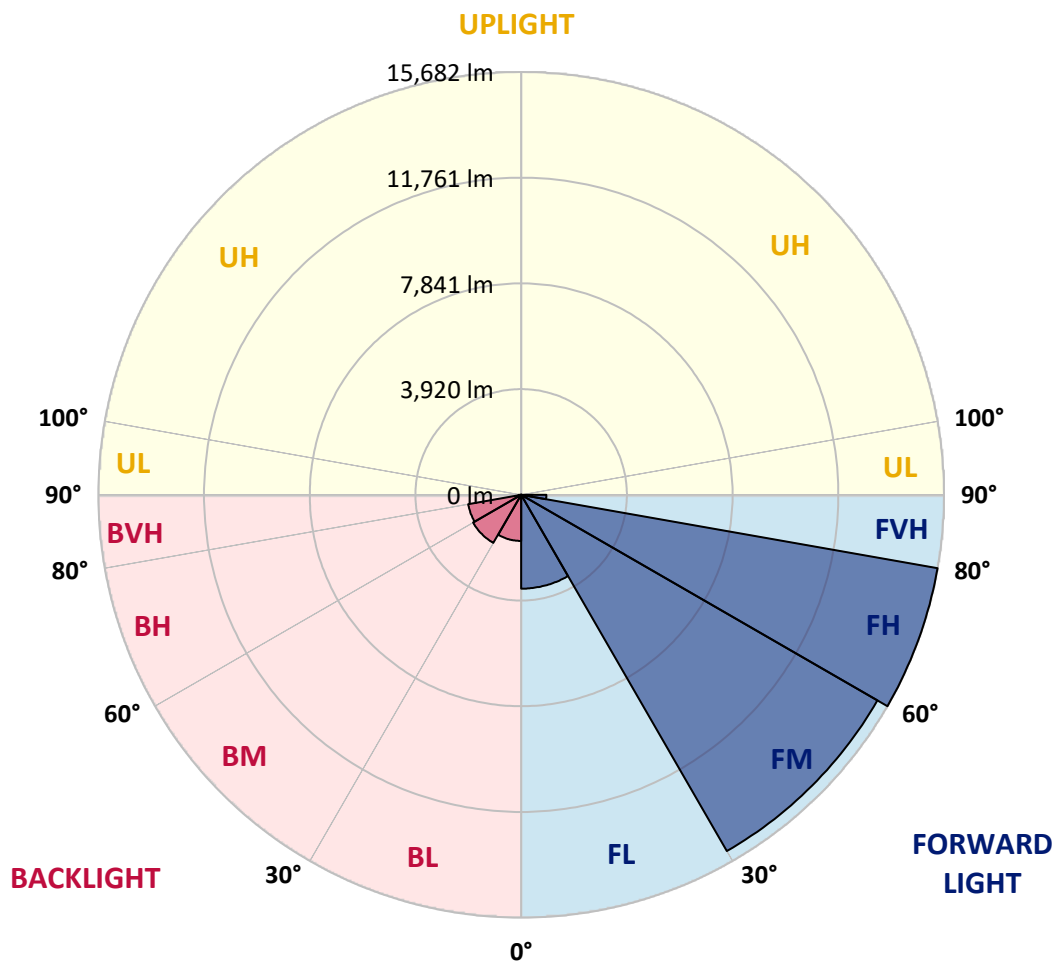
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3480.1	8.4			
FM (30°-60°)	15255.5	37.0			
FH (60°-80°)	15681.6	38.0			G5
FVH (80°-90°)	934.5	2.3			G5
BL (0°-30°)	1710.6	4.2	B3/2500		
BM (30°-60°)	2060.0	5.0	B2/2500		
BH (60°-80°)	1993.5	4.8	B3/2500		G3/2500
BVH (80°-90°)	99.6	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	10502.3	10502.3	10502.3	10502.3	10502.3	10502.3	10502.3	10502.3	10502.3	10502.3	10502.3
2.5°	10717.3	10741.2	10731.2	10725.3	10743.2	10715.3	10657.6	10639.7	10611.8	10546.1	10434.6
5°	10315.1	10386.8	10382.8	10436.6	10526.2	10550.1	10524.2	10528.2	10476.4	10394.8	10209.6
7.5°	9620.3	9650.1	9666.1	9783.5	9946.8	10078.2	10189.7	10225.5	10201.6	10132.0	9893.0
10°	8903.5	8927.4	8965.3	9102.6	9309.7	9490.9	9701.9	9823.4	9875.1	9863.2	9596.4
12.5°	8288.3	8312.2	8362.0	8517.3	8764.2	8987.2	9293.8	9445.1	9568.5	9642.2	9355.5
15°	7736.8	7788.6	7836.4	8015.6	8292.3	8585.0	8931.4	9122.5	9313.7	9478.9	9142.5
17.5°	7306.8	7358.6	7386.4	7549.7	7844.4	8202.7	8608.9	8833.9	9072.8	9343.5	8931.4
20°	7057.9	7081.8	7069.9	7161.5	7426.3	7806.5	8288.3	8549.2	8837.8	9216.1	8720.4
22.5°	6988.2	6990.2	6946.4	6936.5	7107.7	7428.2	7945.9	8262.5	8616.8	9132.5	8539.2
25°	7157.5	7151.5	7032.0	6934.5	6952.4	7139.6	7615.4	7983.7	8431.7	9114.6	8399.8
27.5°	7533.8	7551.7	7374.5	7191.3	7010.1	7004.2	7364.5	7752.8	8280.4	9196.2	8340.1
30°	8061.4	8091.2	7902.1	7669.1	7328.7	7048.0	7267.0	7615.4	8186.8	9365.4	8330.1
32.5°	8638.7	8670.6	8527.3	8282.4	7836.4	7318.7	7334.7	7627.3	8182.8	9602.4	8397.8
35°	9253.9	9289.8	9216.1	9009.1	8513.3	7818.5	7593.5	7820.5	8312.2	9964.7	8579.0
37.5°	9940.8	9996.6	10016.5	9819.4	9289.8	8477.5	8017.6	8186.8	8604.9	10468.4	8911.5
40°	10930.3	11008.0	11002.0	10719.3	10179.7	9367.4	8672.6	8716.4	9060.8	11141.4	9443.1
42.5°	12825.7	12841.6	12345.9	11730.7	11159.3	10303.2	9445.1	9409.2	9690.0	11993.5	10225.5
45°	15236.8	15171.1	14068.1	12879.5	12182.6	11378.3	10450.5	10275.3	10488.3	13032.8	11205.1
47.5°	17237.7	17086.4	15692.7	14052.1	13265.7	12547.0	11631.1	11324.5	11442.0	14211.4	12471.3
50°	17932.5	17819.0	16664.3	15027.7	14291.1	13972.5	13084.5	12650.5	12682.4	15617.0	13954.6
52.5°	17783.2	17767.3	16996.8	15670.8	15250.7	15469.7	15143.2	14555.9	14245.3	17177.9	15555.3
55°	17430.8	17464.6	17185.9	16419.4	16347.7	16915.1	17833.0	17398.9	16433.3	18752.8	17209.8
57.5°	16206.4	16294.0	16907.2	17361.1	18113.7	18957.9	19999.1	19875.7	18788.6	20455.0	19176.9
60°	13056.7	13259.7	14904.3	17177.9	19931.4	22571.4	23037.3	22750.6	21217.6	22567.4	21775.0
62.5°	9148.4	9359.5	11314.6	14872.4	19632.8	26652.9	28468.6	27232.2	24705.7	25679.3	25137.8
65°	4897.7	4999.3	6492.5	10319.1	16574.7	27495.1	36406.6	34525.1	30228.6	29515.9	28014.7
67.5°	2701.7	2757.5	3328.9	5210.3	10615.8	24212.0	41463.6	42885.1	37131.3	32070.3	27491.1
69°	2442.9	2494.7	2869.0	3946.1	7103.7	20019.0	40969.8	45089.1	40157.5	31817.4	25555.9
70°	2389.1	2436.9	2773.4	3637.5	5749.9	16501.0	39315.3	44525.7	40878.2	30911.5	23867.5
72.5°	2150.2	2202.0	2528.5	3267.2	4913.7	8226.6	31142.5	37646.9	37113.3	26802.2	18103.7
75°	2004.9	2052.7	2606.2	3199.5	4704.6	5206.3	20530.7	27745.9	27282.0	18748.8	9761.6
77.5°	858.1	854.1	1208.5	2707.7	4774.3	5041.1	11031.9	17333.2	15814.1	8013.6	2803.3
80°	573.4	563.4	573.4	796.4	4378.1	5069.0	5779.7	8798.0	6645.8	2042.7	1381.7
82.5°	493.8	485.8	503.7	485.8	1539.0	5785.7	4913.7	4678.7	3159.6	1160.7	684.9
85°	332.5	318.6	434.0	436.0	726.7	5140.6	5534.8	3952.0	2556.4	688.9	338.5
87.5°	159.3	155.3	252.9	308.6	426.1	2088.5	6209.8	4049.6	2578.3	352.4	161.3
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°	10502.3	10502.3	10502.3	10502.3	10502.3	10502.3	10502.3	10502.3	10502.3	10502.3	10502.3
2.5°	10400.7	10319.1	10239.5	10143.9	10044.4	9932.9	9877.1	9821.4	9807.4	9791.5	9735.8
5°	10114.0	9998.6	9799.5	9580.5	9349.5	9124.5	8953.3	8845.8	8764.2	8722.4	8648.7
7.5°	9743.7	9574.5	9226.1	8847.8	8459.6	8105.2	7798.6	7605.4	7422.3	7336.7	7239.1
10°	9391.3	9138.5	8596.9	8039.5	7482.0	6946.4	6442.7	6086.3	5769.8	5592.6	5467.2
12.5°	9088.7	8742.3	7991.7	7237.1	6472.6	5710.1	4955.5	4362.2	3866.4	3605.6	3472.2
15°	8794.0	8375.9	7416.3	6458.7	5477.1	4439.8	3448.3	2775.4	2365.3	2202.0	2146.2
17.5°	8527.3	7991.7	6838.9	5674.2	4449.8	3195.5	2317.5	1947.2	1789.9	1736.1	1718.2
20°	8238.6	7603.4	6239.6	4853.9	3378.6	2233.8	1809.8	1646.5	1582.8	1566.9	1558.9
22.5°	7959.8	7221.2	5666.3	3975.9	2427.0	1724.2	1554.9	1487.2	1477.3	1491.2	1491.2
25°	7722.9	6878.7	5047.1	3058.1	1781.9	1451.4	1391.7	1375.7	1413.6	1465.3	1475.3
27.5°	7545.7	6598.0	4388.1	2257.7	1419.5	1262.3	1260.3	1286.2	1379.7	1479.3	1499.2
30°	7424.3	6331.2	3683.3	1628.6	1190.6	1111.0	1142.8	1198.6	1335.9	1477.3	1515.1
32.5°	7362.5	6134.1	2948.6	1260.3	1019.4	975.6	1029.3	1097.0	1232.4	1363.8	1413.6
35°	7410.3	5988.8	2255.7	1051.2	899.9	866.1	921.8	987.5	1067.2	1122.9	1160.7
37.5°	7589.5	5931.0	1702.3	941.7	818.3	786.4	830.2	868.1	899.9	915.8	933.8
40°	7975.8	5992.8	1363.8	886.0	772.5	732.7	750.6	764.5	784.4	800.4	808.3
42.5°	8545.2	6177.9	1222.4	864.1	748.6	690.9	686.9	692.9	718.7	748.6	754.6
45°	9341.5	6504.4	1212.5	878.0	736.7	657.0	639.1	647.1	686.9	732.7	740.6
47.5°	10358.9	7002.2	1292.1	919.8	746.6	639.1	609.2	619.2	669.0	730.7	740.6
50°	11591.3	7697.0	1425.5	981.5	790.4	643.1	599.3	605.2	657.0	724.7	734.7
52.5°	13046.7	8682.5	1570.9	1041.3	836.2	669.0	607.2	593.3	641.1	700.8	712.8
55°	14665.4	9946.8	1720.2	1095.0	860.1	700.8	623.2	577.4	611.2	661.0	671.0
57.5°	16652.3	11714.8	1979.0	1146.8	876.0	722.7	639.1	561.4	573.4	609.2	617.2
60°	19342.1	14215.4	2434.9	1232.4	911.9	730.7	637.1	547.5	535.6	555.5	559.5
62.5°	22565.5	16931.1	2815.2	1339.9	971.6	736.7	625.2	537.6	503.7	503.7	507.7
65°	24478.8	17657.8	2604.2	1429.5	1021.4	730.7	611.2	527.6	479.8	457.9	459.9
67.5°	22856.1	15529.4	2231.9	1447.4	1019.4	702.8	589.3	509.7	455.9	422.1	420.1
69°	20823.4	13399.1	2064.6	1399.6	971.6	667.0	561.4	489.8	438.0	402.2	400.2
70°	19184.8	12099.0	1955.1	1347.9	919.8	641.1	539.5	471.9	424.1	390.2	386.2
72.5°	13948.6	7928.0	1670.4	1158.7	758.6	537.6	465.9	414.1	378.3	358.4	354.4
75°	6970.3	3780.8	1355.8	939.7	581.4	430.0	382.3	346.4	328.5	324.5	322.5
77.5°	2289.6	1732.1	969.6	700.8	432.0	336.5	308.6	282.7	278.7	290.7	286.7
80°	1258.3	1007.4	615.2	463.9	294.7	246.9	242.9	229.0	234.9	254.8	250.9
82.5°	641.1	523.6	380.3	278.7	199.1	177.2	193.1	185.2	193.1	211.0	209.1
85°	316.6	286.7	240.9	169.2	131.4	113.5	137.4	143.3	147.3	161.3	161.3
87.5°	183.2	169.2	127.4	79.6	65.7	59.7	79.6	77.6	91.6	99.5	97.6
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)