

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: P299924

Luminaire Tested: **GLNA-AF-09-LED-E1-SL3-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299924
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-09-LED-E1-SL3-7030-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 3000K 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: 41443.9 lumens
Efficiency: N/A
Efficacy: 110.8 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

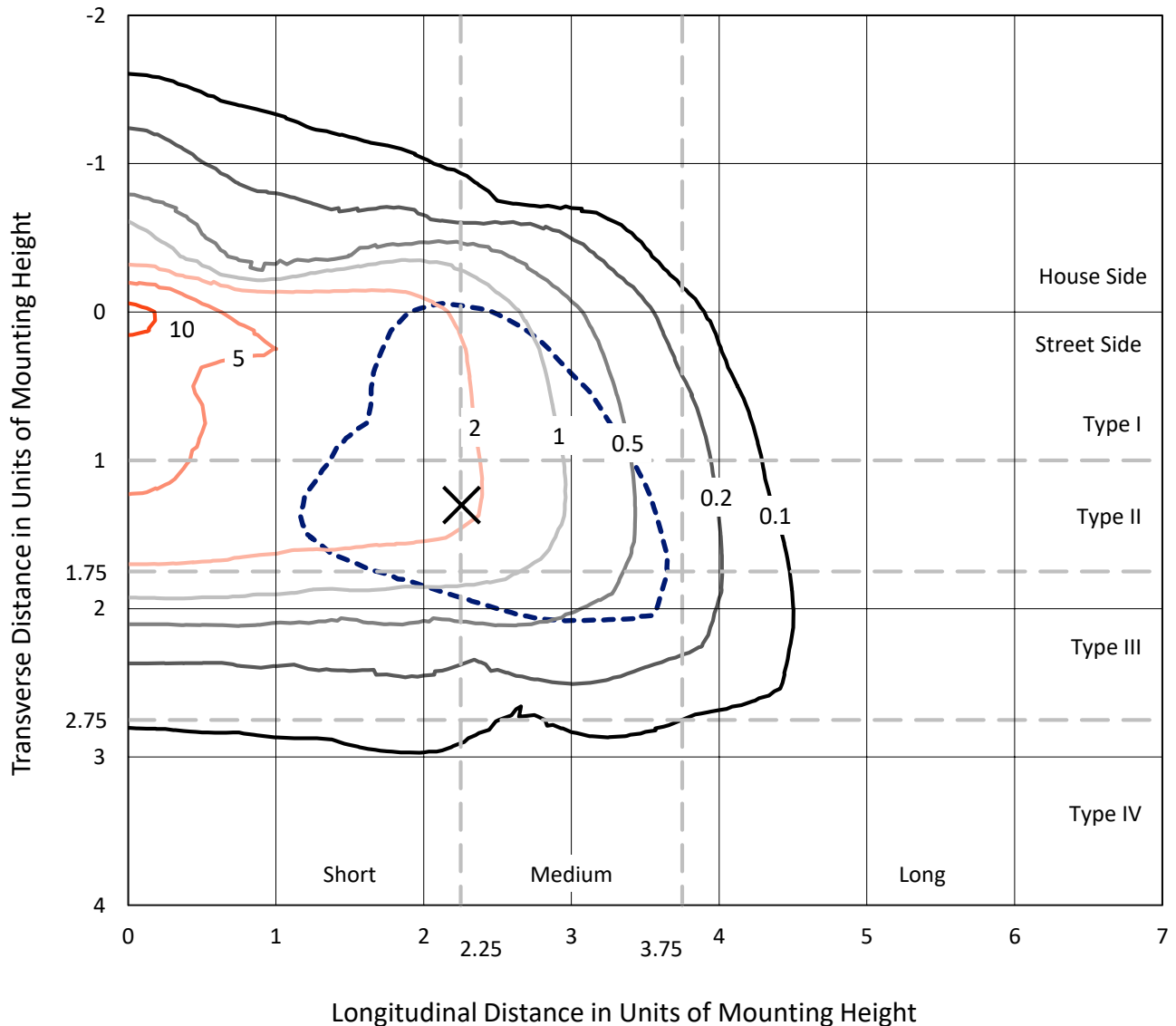
Input Watts (W): 374
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

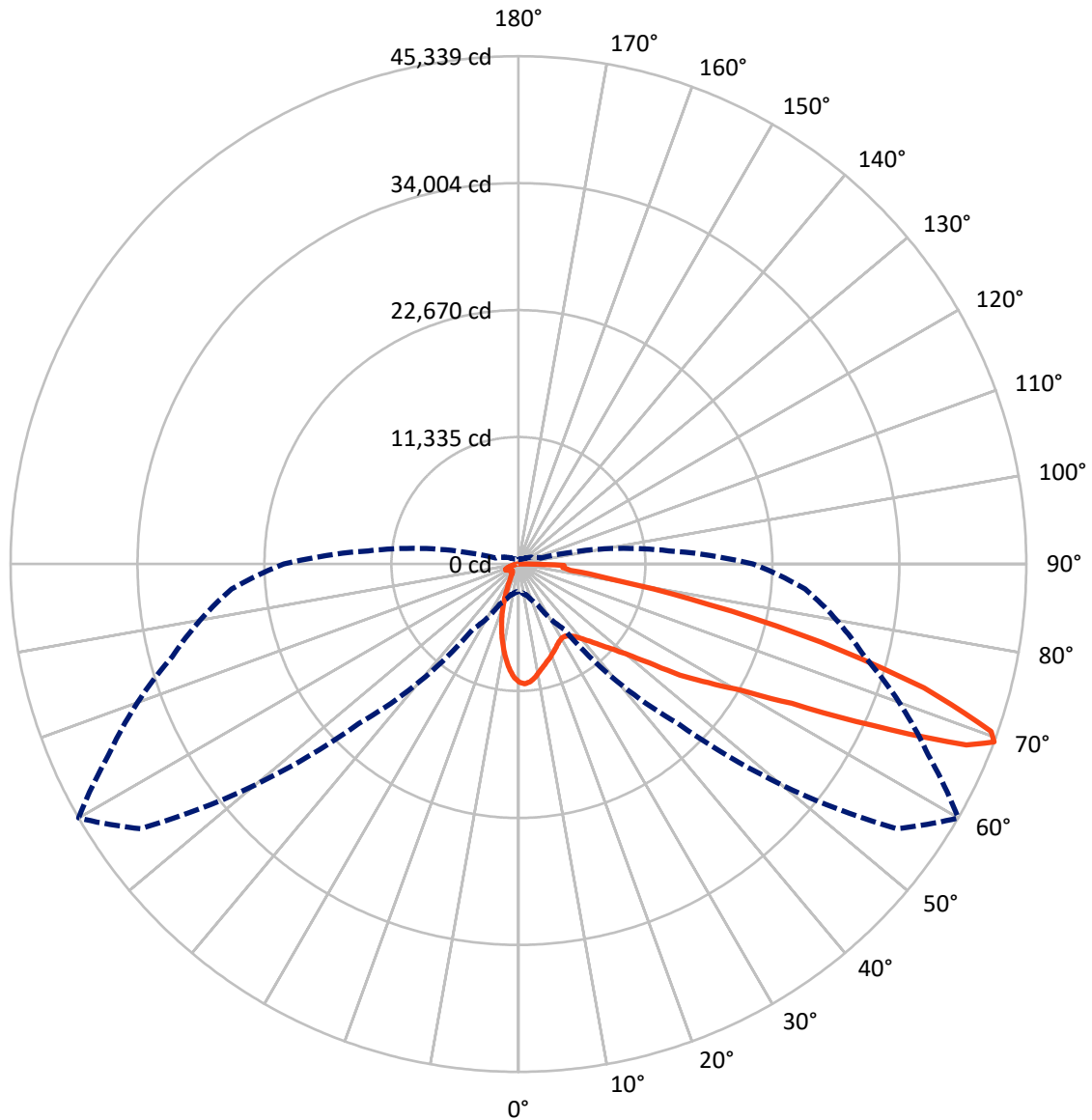
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 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	5896.2	0.0	5896.2
	% Fixture	14.2	0.0	14.2
Street Side	Lumens	35547.7	0.0	35547.7
	% Fixture	85.8	0.0	85.8
Total	Lumens	41443.9	0.0	41443.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	892.9	2.2
10°-20°	1902.5	4.6
20°-30°	2424.1	5.8
30°-40°	3332.5	8.0
40°-50°	5407.2	13.0
50°-60°	8671.8	20.9
60°-70°	11541.6	27.8
70°-80°	6231.6	15.0
80°-90°	1039.8	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°	41443.9	100.0
0°-180°	41443.9	100.0

Coefficient of Utilization



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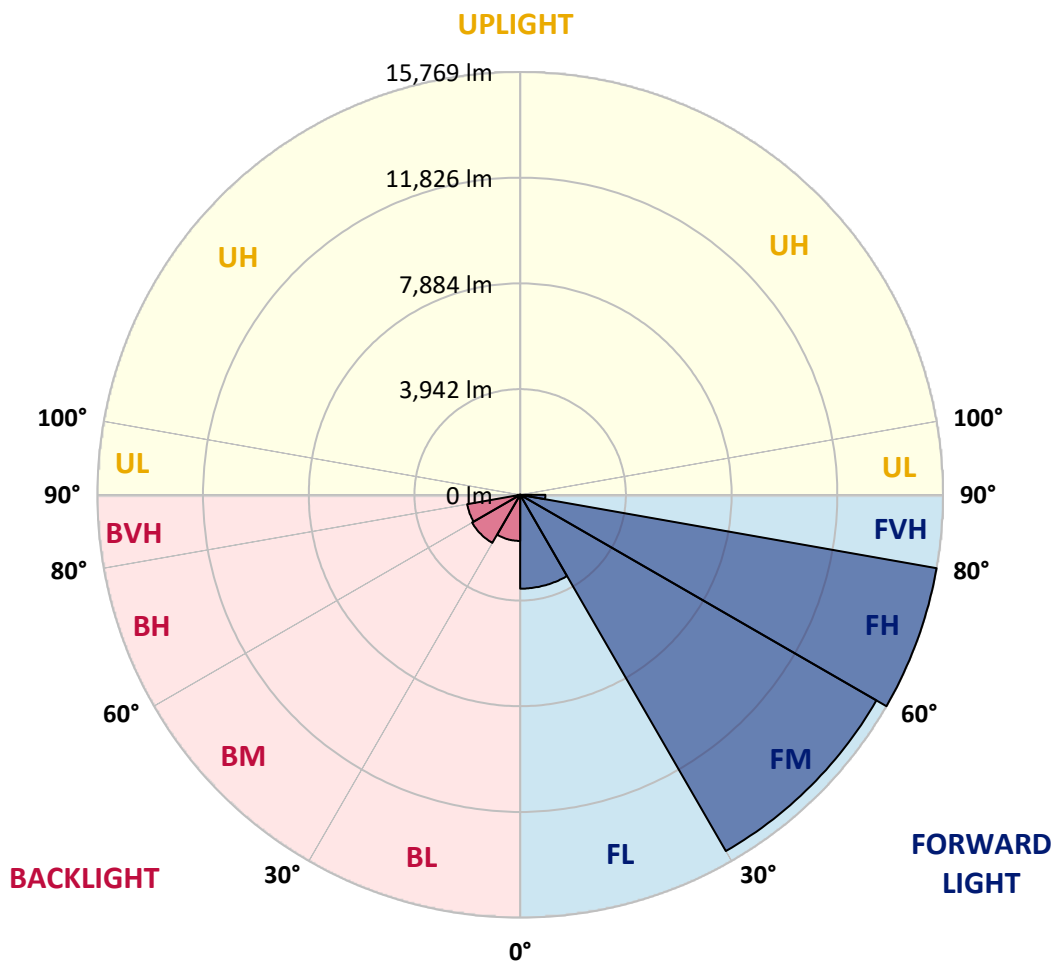
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3499.4	8.4			
FM	(30°-60°)	15340.1	37.0			
FH	(60°-80°)	15768.6	38.0			G5
FVH	(80°-90°)	939.7	2.3			G5
BL	(0°-30°)	1720.1	4.2	B3/2500		
BM	(30°-60°)	2071.4	5.0	B2/2500		
BH	(60°-80°)	2004.5	4.8	B3/2500		G3/2500
BVH	(80°-90°)	100.1	0.2			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 III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	10560.5	10560.5	10560.5	10560.5	10560.5	10560.5	10560.5	10560.5	10560.5	10560.5	10560.5
2.5°	10776.7	10800.8	10790.8	10784.8	10802.8	10774.7	10716.7	10698.7	10670.6	10604.6	10492.5
5°	10372.3	10444.4	10440.4	10494.5	10584.6	10608.6	10582.6	10586.6	10534.5	10452.4	10266.2
7.5°	9673.6	9703.7	9719.7	9837.8	10002.0	10134.1	10246.2	10282.3	10258.2	10188.2	9947.9
10°	8952.9	8977.0	9015.0	9153.1	9361.3	9543.5	9755.7	9877.8	9929.9	9917.9	9649.6
12.5°	8334.3	8358.3	8408.4	8564.5	8812.8	9037.0	9345.3	9497.5	9621.6	9695.7	9407.4
15°	7779.8	7831.8	7879.9	8060.0	8338.3	8632.6	8981.0	9173.1	9365.3	9531.5	9193.2
17.5°	7347.3	7399.4	7427.4	7591.6	7887.9	8248.2	8656.6	8882.9	9123.1	9395.4	8981.0
20°	7097.1	7121.1	7109.1	7201.2	7467.4	7849.8	8334.3	8596.6	8886.9	9267.2	8768.7
22.5°	7027.0	7029.0	6985.0	6975.0	7147.1	7469.4	7990.0	8308.3	8664.6	9183.2	8586.6
25°	7197.2	7191.2	7071.1	6973.0	6991.0	7179.2	7657.6	8028.0	8478.5	9165.1	8446.4
27.5°	7575.6	7593.6	7415.4	7231.2	7049.0	7043.0	7405.4	7795.8	8326.3	9247.2	8386.4
30°	8106.1	8136.1	7945.9	7711.7	7369.3	7087.1	7307.3	7657.6	8232.2	9417.4	8376.4
32.5°	8686.7	8718.7	8574.6	8328.3	7879.9	7359.3	7375.4	7669.6	8228.2	9655.6	8444.4
35°	9305.3	9341.3	9267.2	9059.0	8560.5	7861.8	7635.6	7863.8	8358.3	10020.0	8626.6
37.5°	9996.0	10052.0	10072.0	9873.8	9341.3	8524.5	8062.0	8232.2	8652.6	10526.5	8960.9
40°	10991.0	11069.0	11063.0	10778.7	10236.2	9419.4	8720.7	8764.7	9111.1	11203.2	9495.5
42.5°	12896.9	12912.9	12414.4	11795.8	11221.2	10360.3	9497.5	9461.4	9743.7	12060.0	10282.3
45°	15321.3	15255.2	14146.1	12950.9	12250.2	11441.4	10508.5	10332.3	10546.5	13105.1	11267.2
47.5°	17333.3	17181.1	15779.7	14130.1	13339.3	12616.6	11695.7	11387.4	11505.5	14290.2	12540.5
50°	18032.0	17917.9	16756.7	15111.1	14370.3	14050.0	13157.1	12720.7	12752.7	15703.7	14032.0
52.5°	17881.8	17865.8	17091.0	15757.7	15335.3	15555.5	15227.2	14636.6	14324.3	17273.2	15641.6
55°	17527.5	17561.5	17281.2	16510.5	16438.4	17009.0	17931.9	17495.4	16524.5	18856.8	17305.3
57.5°	16296.2	16384.3	17001.0	17457.4	18214.2	19063.0	20110.1	19985.9	18892.8	20568.5	19283.2
60°	13129.1	13333.3	14986.9	17273.2	20042.0	22696.6	23165.1	22876.8	21335.3	22692.6	21895.8
62.5°	9199.2	9411.4	11377.3	14954.9	19741.7	26800.7	28626.5	27383.3	24842.8	25821.7	25277.2
65°	4924.9	5027.0	6528.5	10376.3	16666.6	27647.6	36608.5	34716.6	30396.3	29679.6	28170.1
67.5°	2716.7	2772.8	3347.3	5239.2	10674.6	24346.3	41693.6	43123.0	37337.2	32248.2	27643.6
69°	2456.4	2508.5	2884.9	3968.0	7143.1	20130.1	41197.1	45339.2	40380.3	31993.9	25697.6
70°	2402.4	2450.4	2788.8	3657.6	5781.8	16592.5	39533.4	44772.6	41105.0	31083.0	23999.9
72.5°	2162.2	2214.2	2542.5	3285.3	4940.9	8272.2	31315.2	37855.7	37319.2	26950.9	18204.2
75°	2016.0	2064.1	2620.6	3217.2	4730.7	5235.2	20644.6	27899.8	27433.4	18852.8	9815.8
77.5°	862.9	858.9	1215.2	2722.7	4800.8	5069.1	11093.1	17429.4	15901.9	8058.0	2818.8
80°	576.6	566.6	576.6	800.8	4402.4	5097.1	5811.8	8846.8	6682.7	2054.0	1389.4
82.5°	496.5	488.5	506.5	488.5	1547.5	5817.8	4940.9	4704.7	3177.2	1167.2	688.7
85°	334.3	320.3	436.4	438.4	730.7	5169.2	5565.5	3974.0	2570.6	692.7	340.3
87.5°	160.2	156.2	254.3	310.3	428.4	2100.1	6244.2	4072.1	2592.6	354.4	162.2
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°	10560.5	10560.5	10560.5	10560.5	10560.5	10560.5	10560.5	10560.5	10560.5	10560.5	10560.5
2.5°	10458.4	10376.3	10296.3	10200.2	10100.1	9988.0	9931.9	9875.8	9861.8	9845.8	9789.8
5°	10170.1	10054.0	9853.8	9633.6	9401.4	9175.1	9003.0	8894.9	8812.8	8770.7	8696.7
7.5°	9797.8	9627.6	9277.3	8896.9	8506.5	8150.1	7841.8	7647.6	7463.4	7377.4	7279.3
10°	9443.4	9189.2	8644.6	8084.1	7523.5	6985.0	6478.5	6120.1	5801.8	5623.6	5497.5
12.5°	9139.1	8790.8	8036.0	7277.3	6508.5	5741.7	4983.0	4386.4	3887.9	3625.6	3491.5
15°	8842.8	8422.4	7457.4	6494.5	5507.5	4464.5	3467.5	2790.8	2378.4	2214.2	2158.2
17.5°	8574.6	8036.0	6876.9	5705.7	4474.5	3213.2	2330.3	1958.0	1799.8	1745.7	1727.7
20°	8284.3	7645.6	6274.3	4880.9	3397.4	2246.2	1819.8	1655.7	1591.6	1575.6	1567.6
22.5°	8004.0	7261.2	5697.7	3998.0	2440.4	1733.7	1563.6	1495.5	1485.5	1499.5	1499.5
25°	7765.7	6916.9	5075.1	3075.1	1791.8	1459.5	1399.4	1383.4	1421.4	1473.5	1483.5
27.5°	7587.6	6634.6	4412.4	2270.3	1427.4	1269.3	1267.3	1293.3	1387.4	1487.5	1507.5
30°	7465.4	6366.3	3703.7	1637.6	1197.2	1117.1	1149.1	1205.2	1343.3	1485.5	1523.5
32.5°	7403.4	6168.2	2965.0	1267.3	1025.0	981.0	1035.0	1103.1	1239.2	1371.4	1421.4
35°	7451.4	6022.0	2268.3	1057.1	904.9	870.9	926.9	993.0	1073.1	1129.1	1167.2
37.5°	7631.6	5963.9	1711.7	946.9	822.8	790.8	834.8	872.9	904.9	920.9	938.9
40°	8020.0	6026.0	1371.4	890.9	776.8	736.7	754.8	768.8	788.8	804.8	812.8
42.5°	8592.6	6212.2	1229.2	868.9	752.8	694.7	690.7	696.7	722.7	752.8	758.8
45°	9393.4	6540.5	1219.2	882.9	740.7	660.7	642.6	650.6	690.7	736.7	744.7
47.5°	10416.4	7041.0	1299.3	924.9	750.7	642.6	612.6	622.6	672.7	734.7	744.7
50°	11655.6	7739.7	1433.4	987.0	794.8	646.6	602.6	608.6	660.7	728.7	738.7
52.5°	13119.1	8730.7	1579.6	1047.0	840.8	672.7	610.6	596.6	644.6	704.7	716.7
55°	14746.7	10002.0	1729.7	1101.1	864.9	704.7	626.6	580.6	614.6	664.7	674.7
57.5°	16744.7	11779.7	1990.0	1153.1	880.9	726.7	642.6	564.6	576.6	612.6	620.6
60°	19449.4	14294.3	2448.4	1239.2	916.9	734.7	640.6	550.5	538.5	558.6	562.6
62.5°	22690.6	17025.0	2830.8	1347.3	977.0	740.7	628.6	540.5	506.5	506.5	510.5
65°	24614.5	17755.7	2618.6	1437.4	1027.0	734.7	614.6	530.5	482.5	460.5	462.5
67.5°	22982.9	15615.6	2244.2	1455.5	1025.0	706.7	592.6	512.5	458.5	424.4	422.4
69°	20938.9	13473.4	2076.1	1407.4	977.0	670.7	564.6	492.5	440.4	404.4	402.4
70°	19291.2	12166.1	1966.0	1355.4	924.9	644.6	542.5	474.5	426.4	392.4	388.4
72.5°	14026.0	7971.9	1679.7	1165.2	762.8	540.5	468.5	416.4	380.4	360.4	356.4
75°	7009.0	3801.8	1363.4	944.9	584.6	432.4	384.4	348.3	330.3	326.3	324.3
77.5°	2302.3	1741.7	975.0	704.7	434.4	338.3	310.3	284.3	280.3	292.3	288.3
80°	1265.3	1013.0	618.6	466.5	296.3	248.2	244.2	230.2	236.2	256.3	252.3
82.5°	644.6	526.5	382.4	280.3	200.2	178.2	194.2	186.2	194.2	212.2	210.2
85°	318.3	288.3	242.2	170.2	132.1	114.1	138.1	144.1	148.1	162.2	162.2
87.5°	184.2	170.2	128.1	80.1	66.1	60.1	80.1	78.1	92.1	100.1	98.1
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)