

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: P299140

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299140
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
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(8) 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: 46571.5 lumens
Efficiency: N/A
Efficacy: 104.7 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B4 - 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

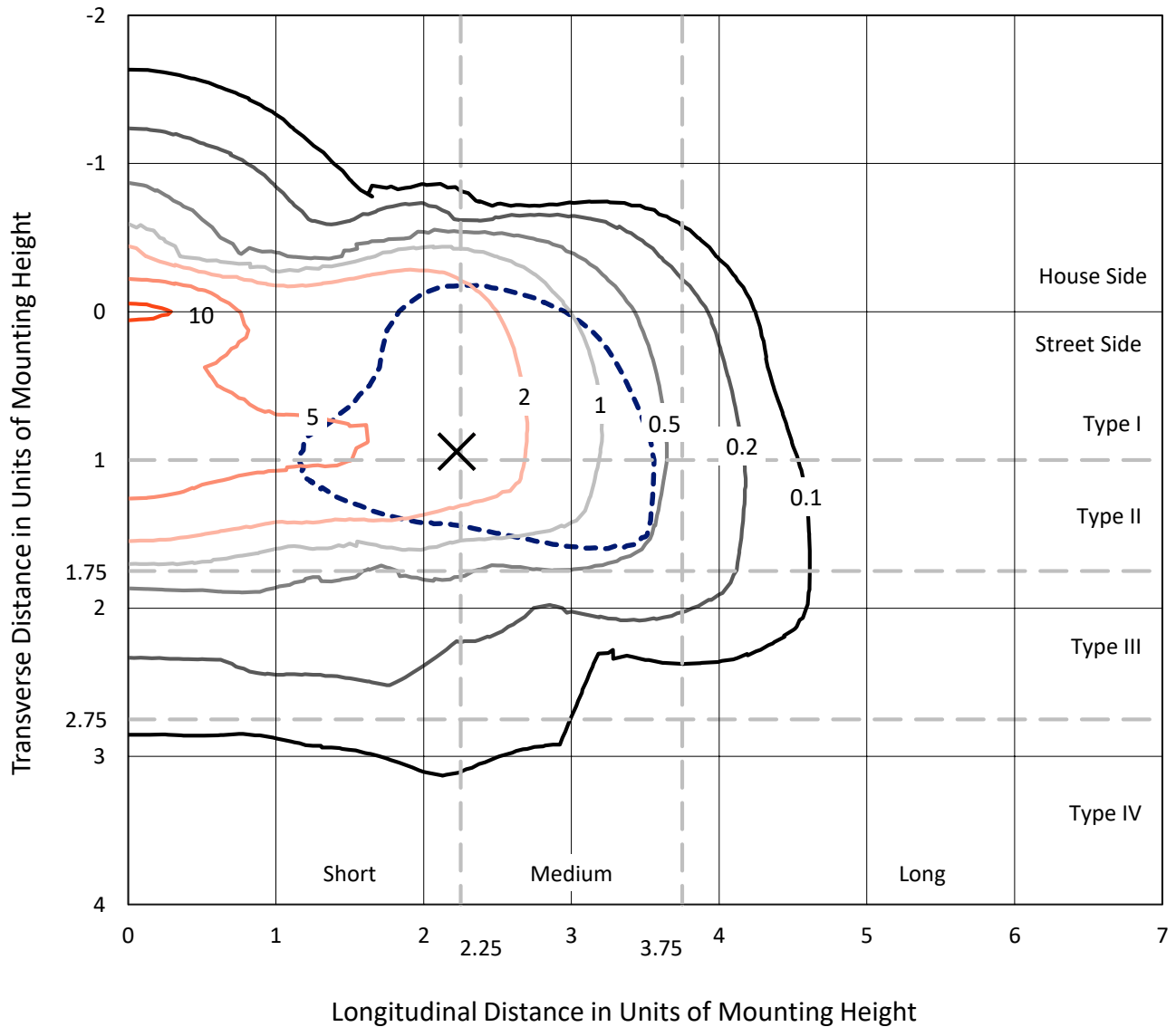


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

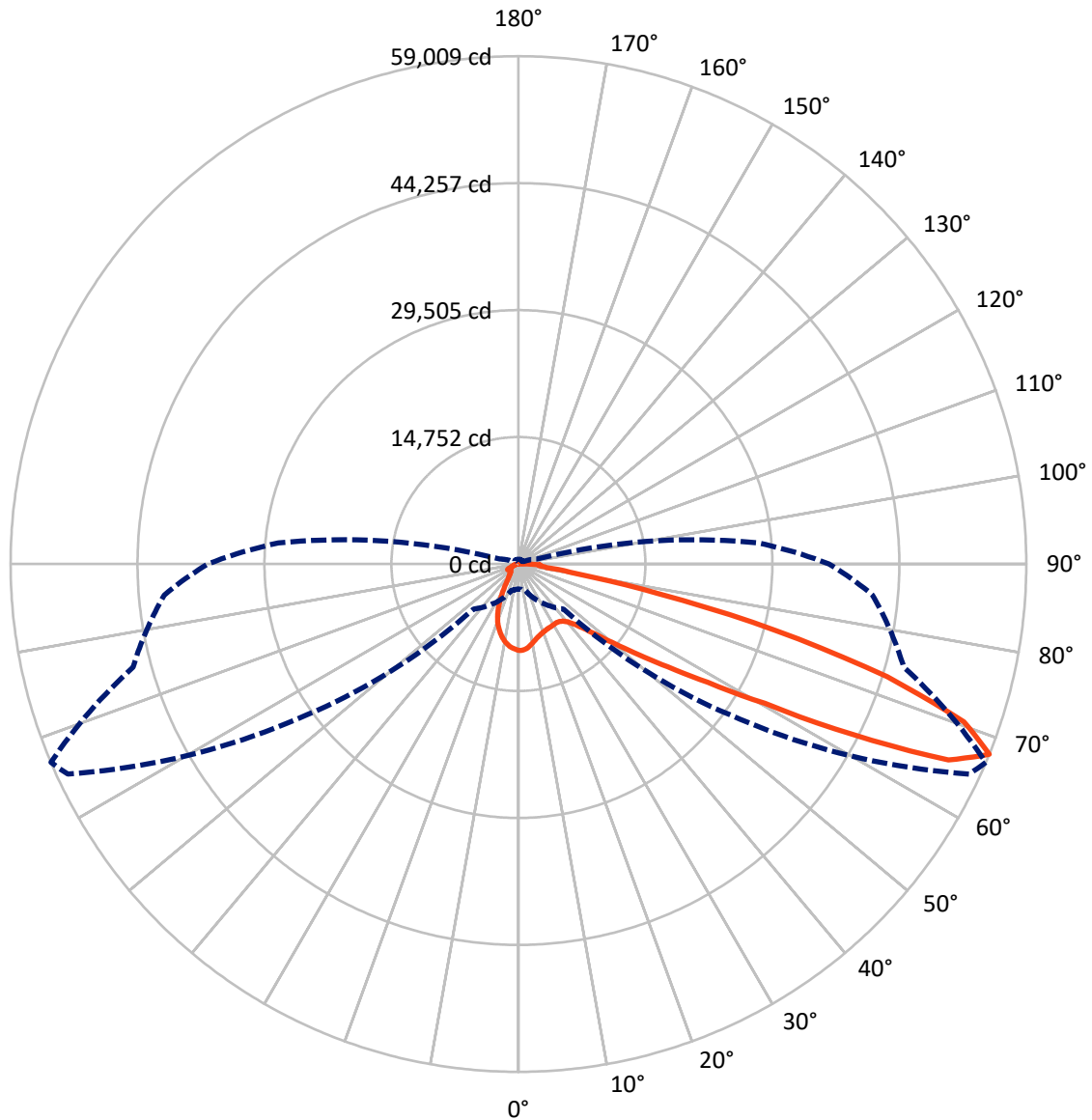


Based on 30 foot mounting height. Maximum calculated value = 11.2 fc
 Type II - Short - Semi-Cutoff

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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	7716.4	0.0	7716.4
	% Fixture	16.6	0.0	16.6
Street Side	Lumens	38855.1	0.0	38855.1
	% Fixture	83.4	0.0	83.4
Total	Lumens	46571.5	0.0	46571.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	857.0	1.8
10°-20°	1983.0	4.3
20°-30°	2688.0	5.8
30°-40°	3821.3	8.2
40°-50°	6393.1	13.7
50°-60°	10113.9	21.7
60°-70°	12884.1	27.7
70°-80°	6748.7	14.5
80°-90°	1082.4	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°	46571.5	100.0
0°-180°	46571.5	100.0



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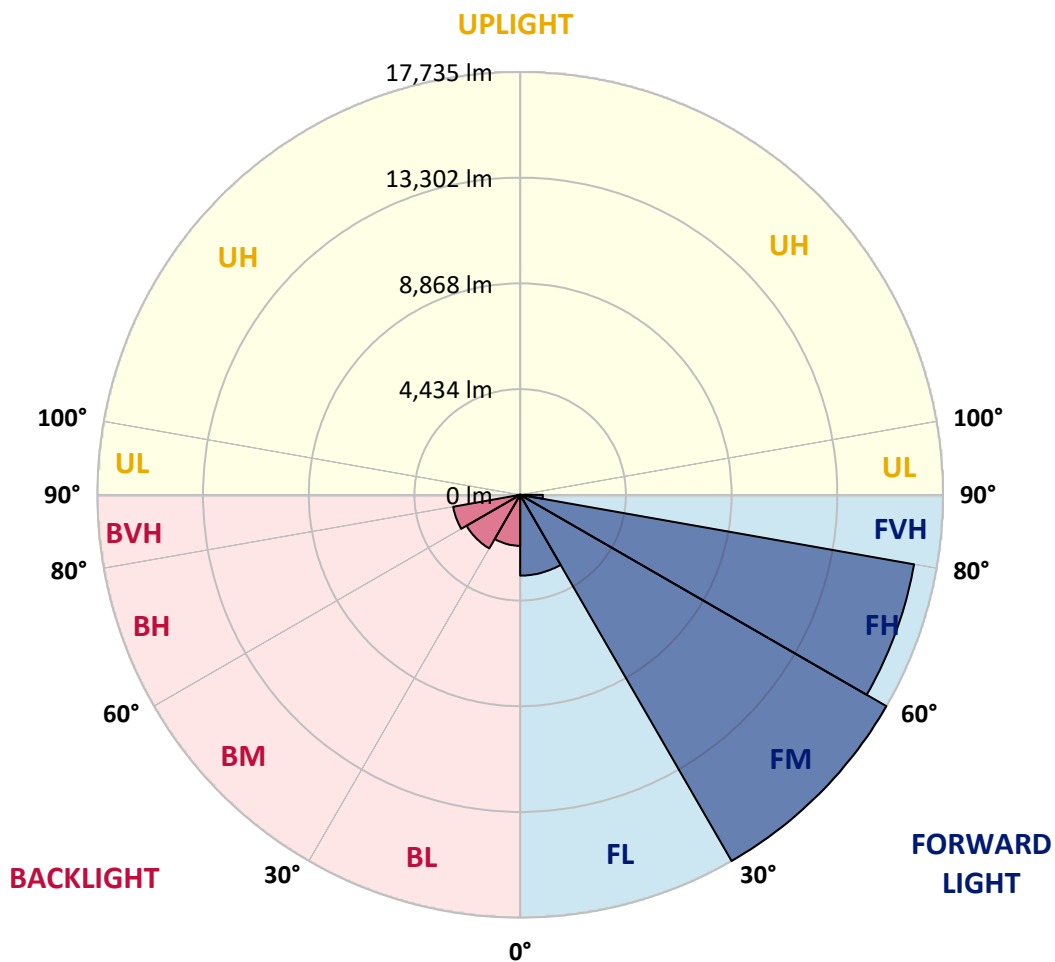
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3389.3	7.3			
FM	(30°-60°)	17735.4	38.1			
FH	(60°-80°)	16778.7	36.0			G5
FVH	(80°-90°)	951.7	2.0			G5
BL	(0°-30°)	2138.8	4.6	B3/2500		
BM	(30°-60°)	2592.9	5.6	B3/5000		
BH	(60°-80°)	2854.0	6.1	B4/5000		G4/5000
BVH	(80°-90°)	130.6	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°	10045.4	10045.4	10045.4	10045.4	10045.4	10045.4	10045.4	10045.4	10045.4	10045.4	10045.4
2.5°	9632.0	9648.0	9698.6	9730.7	9875.4	9937.4	9981.0	10024.7	10031.6	10052.2	10031.6
5°	8621.5	8655.9	8750.1	8855.7	9135.9	9356.4	9588.3	9829.5	9873.1	10029.3	10072.9
7.5°	7838.3	7829.1	7907.2	8033.5	8320.6	8626.1	9032.6	9512.5	9606.7	9958.1	10128.0
10°	7266.5	7259.6	7342.2	7473.2	7746.5	8035.8	8495.1	9152.0	9285.2	9845.5	10180.9
12.5°	6843.9	6846.2	6928.9	7073.5	7351.4	7643.1	8109.3	8802.9	8972.8	9714.6	10236.0
15°	6563.7	6582.1	6648.7	6802.5	7073.5	7365.2	7822.2	8541.1	8731.7	9611.3	10298.0
17.5°	6469.5	6499.4	6522.4	6634.9	6866.9	7158.5	7606.4	8348.2	8550.3	9540.1	10353.1
20°	6556.8	6591.3	6547.6	6586.7	6733.6	6990.9	7436.4	8196.6	8403.3	9459.7	10360.0
22.5°	6931.2	6963.3	6834.7	6722.2	6713.0	6869.1	7296.3	8077.2	8290.7	9400.0	10362.3
25°	7590.3	7611.0	7395.1	7133.3	6878.3	6825.5	7197.6	7994.5	8221.8	9347.2	10318.7
27.5°	8398.7	8414.8	8166.7	7780.9	7268.8	6928.9	7163.1	7946.3	8182.8	9301.3	10245.2
30°	9381.6	9457.4	9124.4	8637.5	7891.1	7234.3	7232.0	7921.0	8139.2	9223.2	10100.5
32.5°	10387.5	10419.7	10190.0	9696.3	8729.4	7771.7	7424.9	7939.4	8127.7	9129.0	9916.7
35°	11407.2	11448.6	11299.3	10902.0	9875.4	8559.5	7801.6	8047.3	8198.9	9096.9	9788.1
37.5°	12727.8	12782.9	12576.2	12116.9	11269.4	9627.4	8428.5	8318.3	8417.1	9188.7	9749.1
40°	14815.4	14790.1	14186.1	13501.7	12794.4	10993.9	9324.2	8777.6	8835.0	9485.0	9868.5
42.5°	17245.2	17183.2	16142.8	15068.0	14470.9	12647.4	10509.3	9574.6	9563.1	10068.3	10288.8
45°	19183.5	19133.0	18196.0	16870.9	16393.2	14530.6	12041.1	10761.9	10676.9	10993.9	11065.0
47.5°	20233.1	20235.4	19695.7	18614.0	18602.5	16923.7	14009.3	12479.8	12332.8	12482.1	12406.3
50°	19865.6	19913.9	19856.5	19512.0	20618.9	20060.9	16579.2	14875.1	14578.9	14725.8	14434.2
52.5°	18088.1	18150.1	18490.0	19018.2	21466.4	23852.5	20354.8	17851.5	17507.0	17454.2	17130.4
55°	14937.1	15012.9	15706.5	17141.9	20761.3	26399.5	26312.2	21645.5	21096.6	20598.3	20460.5
57.5°	10295.7	10422.0	11538.1	13669.4	18480.8	27168.8	33406.4	27054.0	25937.9	24197.0	24229.2
60°	5803.5	5950.5	7266.5	9202.5	13878.4	26332.9	38803.5	35246.0	32889.7	28411.3	28650.2
62.5°	3690.6	3849.1	4848.1	6393.8	8327.5	21831.5	41015.1	46634.9	43642.4	33606.2	33840.5
65°	2987.9	3056.8	3527.6	5277.6	6047.0	13152.7	39336.3	56016.5	54900.4	40199.8	39106.6
67.5°	2916.7	2939.7	3183.1	4430.2	5798.9	7392.8	31376.2	57771.1	59009.0	46357.0	41299.9
70°	2882.2	2962.6	3587.3	4228.1	5553.2	6235.3	18855.1	52962.0	54916.4	47966.9	38380.9
72.5°	1398.6	1394.0	1805.1	3823.8	6256.0	6467.2	9687.1	42852.4	44813.7	41557.1	31539.3
75°	1127.6	1031.2	985.2	1400.9	6014.8	6678.5	6173.3	29486.1	30905.4	27862.4	19387.9
77.5°	1070.2	955.4	875.0	877.3	2542.3	7082.7	5229.4	16319.7	16733.1	12585.4	5312.0
80°	886.5	780.8	723.4	815.3	1231.0	6745.1	5654.2	7385.9	6777.3	3091.2	1768.4
82.5°	615.5	560.4	544.3	684.4	985.2	4806.8	6575.2	3968.5	3327.8	1547.9	1090.9
85°	392.7	335.3	372.1	498.4	767.1	2218.5	6772.7	3093.5	2459.7	982.9	615.5
87.5°	181.4	147.0	183.7	275.6	500.7	764.8	6444.3	3474.8	2533.2	519.0	388.1
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°	10045.4	10045.4	10045.4	10045.4	10045.4	10045.4	10045.4	10045.4	10045.4	10045.4	10045.4
2.5°	10049.9	10006.3	9971.9	9907.6	9836.4	9767.5	9705.5	9627.4	9604.4	9583.7	9615.9
5°	10082.1	10038.5	9912.2	9714.6	9496.5	9292.1	9087.7	8913.1	8805.2	8745.5	8779.9
7.5°	10130.3	10068.3	9806.5	9443.6	9050.9	8692.7	8322.9	8026.6	7808.5	7705.1	7735.0
10°	10174.0	10054.5	9627.4	9083.1	8508.9	7976.1	7392.8	6910.5	6552.2	6363.9	6409.8
12.5°	10192.3	10001.7	9377.0	8632.9	7845.2	7064.4	6205.4	5484.3	4969.9	4781.5	4742.5
15°	10210.7	9942.0	9101.4	8120.8	7043.7	5939.0	4735.6	3872.1	3444.9	3350.7	3330.1
17.5°	10215.3	9838.7	8789.1	7565.0	6104.4	4600.1	3238.2	2689.3	2691.6	2843.2	2861.6
20°	10167.1	9684.8	8410.2	6873.7	4979.0	3180.8	2223.1	2129.0	2475.7	2854.7	2900.6
22.5°	10056.8	9480.4	7980.7	6067.6	3690.6	2094.5	1720.2	1823.5	2271.3	2735.3	2788.1
25°	9916.7	9232.4	7473.2	5132.9	2443.6	1497.4	1442.3	1568.6	1871.7	2181.8	2211.6
27.5°	9726.1	8938.4	6903.6	4062.7	1587.0	1233.3	1270.0	1355.0	1479.0	1616.8	1630.6
30°	9480.4	8587.0	6295.0	2962.6	1198.8	1109.3	1162.1	1208.0	1260.8	1338.9	1345.8
32.5°	9197.9	8249.4	5670.3	2046.3	1063.3	1045.0	1086.3	1109.3	1150.6	1198.8	1203.4
35°	8961.4	7927.9	5022.7	1446.9	1005.9	996.7	1024.3	1033.5	1072.5	1125.3	1129.9
37.5°	8825.9	7666.1	4354.4	1166.7	966.9	953.1	969.2	969.2	1024.3	1102.4	1113.9
40°	8835.0	7521.4	3686.1	1054.1	934.7	916.3	918.6	918.6	989.8	1074.8	1081.7
42.5°	9085.4	7558.1	3093.5	1010.5	909.5	888.8	877.3	884.2	943.9	999.0	1003.6
45°	9673.3	7817.6	2537.7	982.9	884.2	877.3	852.0	849.7	872.7	898.0	898.0
47.5°	10637.9	8329.8	2161.1	964.6	863.5	861.2	831.4	801.5	799.2	808.4	808.4
50°	12206.5	9211.7	1908.5	943.9	849.7	831.4	796.9	751.0	734.9	741.8	741.8
52.5°	14558.2	10784.9	1812.0	916.3	819.9	790.0	751.0	705.1	691.3	693.6	693.6
55°	17642.5	13200.9	1798.2	884.2	787.7	739.5	707.4	672.9	656.8	661.4	661.4
57.5°	21411.3	16542.5	2044.0	833.7	744.1	689.0	670.6	647.6	636.2	643.0	640.8
60°	25993.0	20915.2	3031.5	780.8	700.5	643.0	643.0	624.7	615.5	622.4	620.1
62.5°	31270.6	25937.9	4262.5	741.8	654.5	606.3	615.5	606.3	597.1	601.7	599.4
65°	35951.1	29210.5	3991.5	711.9	608.6	571.9	587.9	583.3	576.4	581.0	578.7
67.5°	36086.6	27997.9	2241.5	679.8	565.0	537.4	560.4	558.1	553.5	558.1	555.8
70°	32205.3	23641.3	1263.1	620.1	519.0	496.1	528.2	525.9	521.3	530.5	528.2
72.5°	25802.4	17155.6	923.2	546.6	473.1	452.4	489.2	486.9	486.9	500.7	493.8
75°	14847.6	8828.2	737.2	468.5	424.9	408.8	440.9	443.2	447.8	466.2	452.4
77.5°	4232.6	2751.3	601.7	397.3	365.2	358.3	390.4	395.0	397.3	418.0	399.6
80°	1573.2	1267.7	496.1	333.0	298.6	300.9	330.7	337.6	339.9	360.6	337.6
82.5°	1003.6	836.0	401.9	257.2	234.3	232.0	268.7	277.9	277.9	280.2	266.4
85°	585.6	500.7	303.2	186.0	165.4	158.5	199.8	215.9	209.0	204.4	195.2
87.5°	392.7	344.5	186.0	103.3	89.6	85.0	117.1	128.6	124.0	117.1	110.2
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)