

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: P299206

Luminaire Tested: **GLNA-AF-09-LED-E1-SL2-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299206
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-SL2-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Narrow OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 41969.8 lumens
Efficiency: N/A
Efficacy: 112.2 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

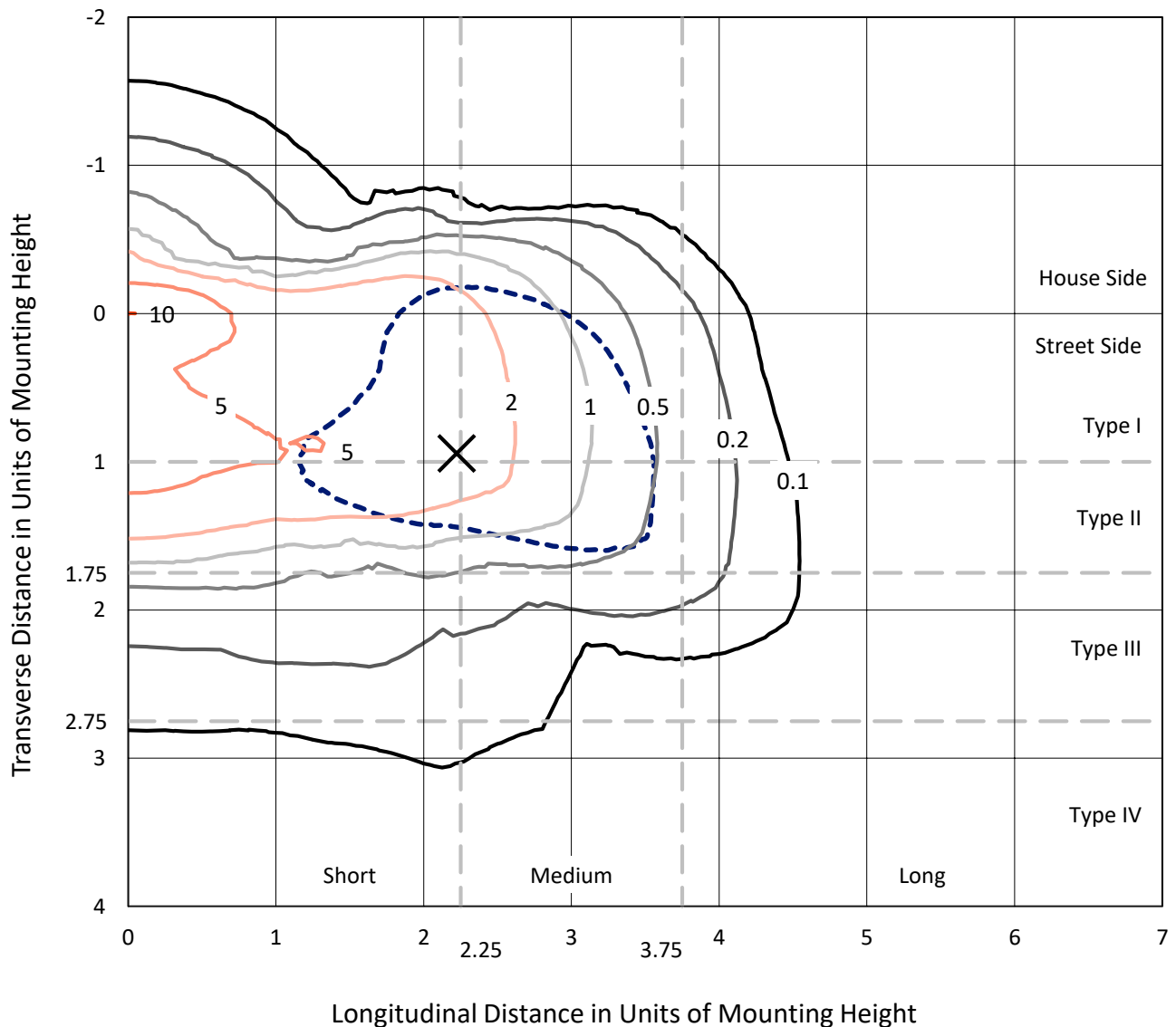
Input Watts (W): 374
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

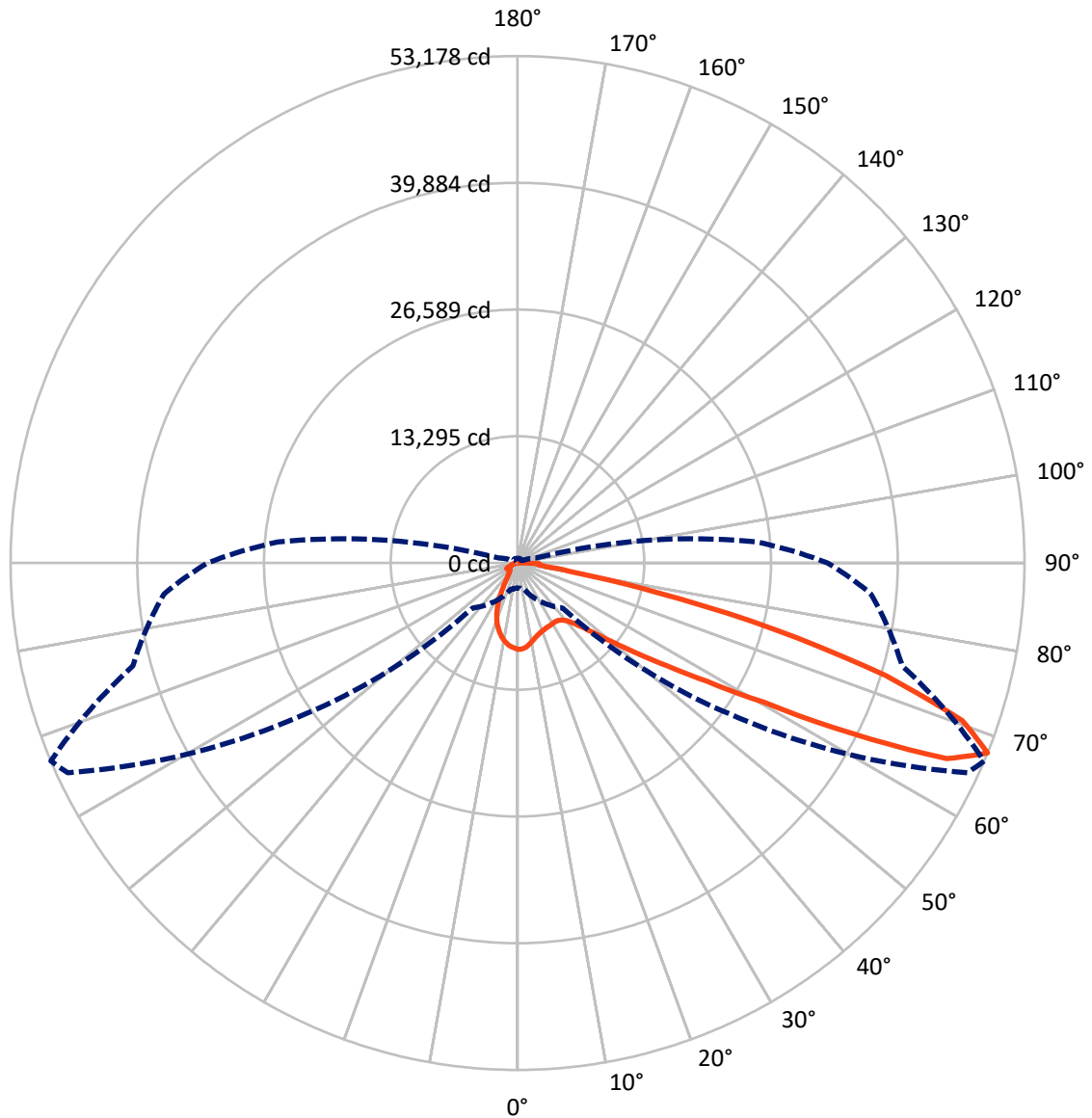
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 10.1 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	6953.9	0.0	6953.9
	% Fixture	16.6	0.0	16.6
Street Side	Lumens	35015.9	0.0	35015.9
	% Fixture	83.4	0.0	83.4
Total	Lumens	41969.8	0.0	41969.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	772.3	1.8
10°-20°	1787.1	4.3
20°-30°	2422.4	5.8
30°-40°	3443.7	8.2
40°-50°	5761.4	13.7
50°-60°	9114.6	21.7
60°-70°	11611.0	27.7
70°-80°	6081.8	14.5
80°-90°	975.4	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°	41969.8	100.0
0°-180°	41969.8	100.0

Coefficient of Utilization



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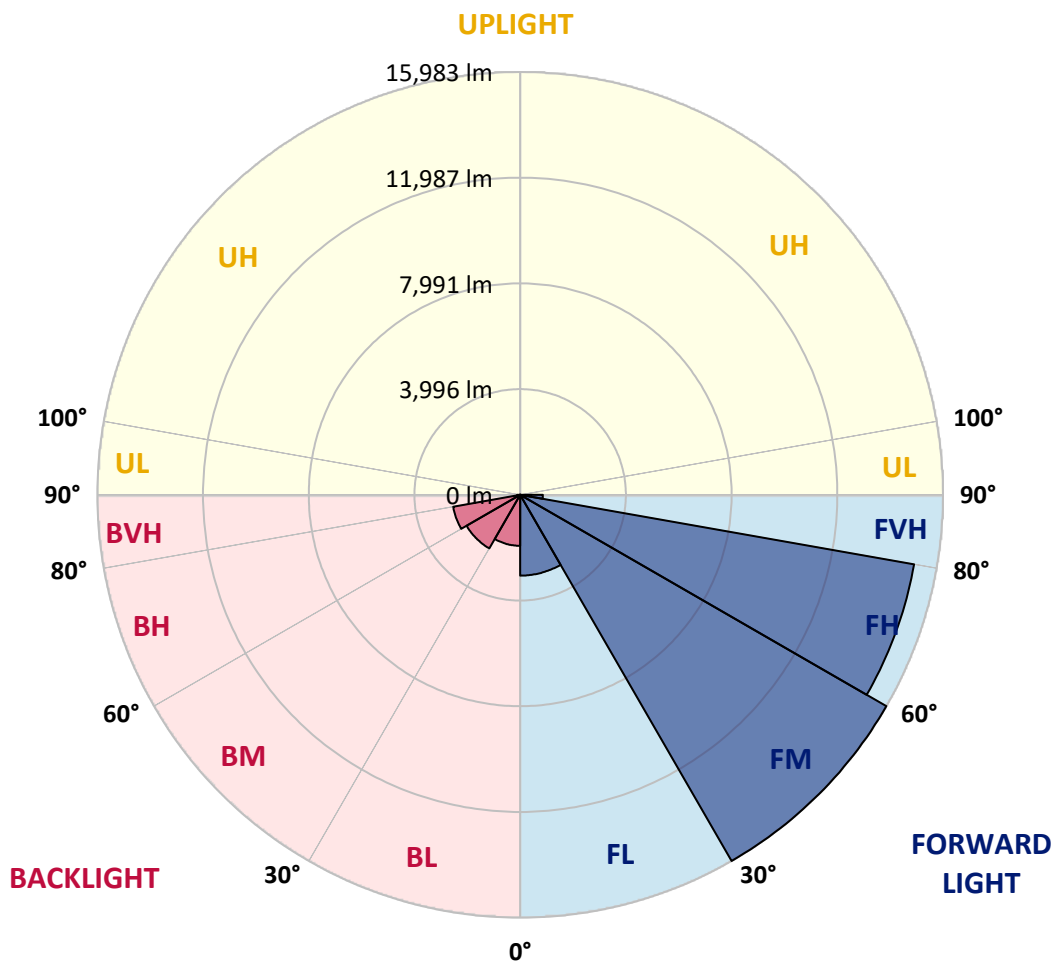
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3054.4	7.3			
FM	(30°-60°)	15983.0	38.1			
FH	(60°-80°)	15120.8	36.0			G5
FVH	(80°-90°)	857.7	2.0			G5
BL	(0°-30°)	1927.4	4.6	B3/2500		
BM	(30°-60°)	2336.7	5.6	B2/2500		
BH	(60°-80°)	2572.0	6.1	B4/5000		G4/5000
BVH	(80°-90°)	117.7	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°	9052.8	9052.8	9052.8	9052.8	9052.8	9052.8	9052.8	9052.8	9052.8	9052.8	9052.8
2.5°	8680.2	8694.7	8740.3	8769.2	8899.6	8955.5	8994.8	9034.2	9040.4	9059.0	9040.4
5°	7769.6	7800.6	7885.5	7980.7	8233.2	8431.9	8640.9	8858.2	8897.6	9038.3	9077.6
7.5°	7063.8	7055.5	7125.9	7239.7	7498.5	7773.7	8140.1	8572.6	8657.5	8974.1	9127.3
10°	6548.5	6542.3	6616.8	6734.7	6981.0	7241.8	7655.7	8247.7	8367.7	8872.7	9174.9
12.5°	6167.6	6169.7	6244.2	6374.6	6625.0	6887.9	7308.0	7933.1	8086.2	8754.7	9224.6
15°	5915.1	5931.7	5991.7	6130.4	6374.6	6637.5	7049.3	7697.1	7868.9	8661.6	9280.4
17.5°	5830.3	5857.2	5877.9	5979.3	6188.3	6451.2	6854.8	7523.3	7705.4	8597.5	9330.1
20°	5908.9	5940.0	5900.7	5935.8	6068.3	6300.1	6701.6	7386.7	7573.0	8525.0	9336.3
22.5°	6246.3	6275.3	6159.4	6058.0	6049.7	6190.4	6575.4	7279.1	7471.5	8471.2	9338.4
25°	6840.3	6858.9	6664.4	6428.4	6198.7	6151.1	6486.4	7204.6	7409.5	8423.6	9299.1
27.5°	7568.8	7583.3	7359.8	7012.1	6550.5	6244.2	6455.3	7161.1	7374.3	8382.2	9232.8
30°	8454.6	8522.9	8222.8	7784.1	7111.4	6519.5	6517.4	7138.3	7334.9	8311.8	9102.5
32.5°	9361.2	9390.1	9183.2	8738.2	7866.9	7003.8	6691.3	7154.9	7324.6	8227.0	8936.9
35°	10280.1	10317.4	10182.8	9824.8	8899.6	7713.7	7030.7	7252.2	7388.8	8198.0	8821.0
37.5°	11470.2	11519.8	11333.6	10919.6	10155.9	8676.1	7595.7	7496.4	7585.4	8280.8	8785.8
40°	13351.5	13328.7	12784.4	12167.7	11530.2	9907.6	8402.9	7910.3	7962.1	8547.8	8893.4
42.5°	15541.2	15485.3	14547.8	13579.2	13041.1	11397.7	9470.9	8628.5	8618.1	9073.5	9272.2
45°	17288.0	17242.5	16398.1	15203.9	14773.4	13094.9	10851.3	9698.5	9621.9	9907.6	9971.7
47.5°	18233.9	18236.0	17749.6	16774.8	16764.4	15251.5	12625.1	11246.6	11114.2	11248.7	11180.4
50°	17902.7	17946.2	17894.5	17584.0	18581.6	18078.7	14941.0	13405.3	13138.3	13270.8	13007.9
52.5°	16300.8	16356.7	16663.0	17139.0	19345.3	21495.7	18343.6	16087.6	15777.2	15729.6	15437.7
55°	13461.2	13529.5	14154.5	15448.1	18709.9	23791.0	23712.3	19506.7	19012.1	18563.0	18438.8
57.5°	9278.4	9392.2	10398.1	12318.7	16654.7	24484.3	30105.6	24380.8	23375.0	21806.2	21835.1
60°	5230.1	5362.5	6548.5	8293.2	12507.1	23731.0	34969.3	31763.4	29639.9	25604.0	25819.3
62.5°	3326.0	3468.8	4369.1	5762.0	7504.7	19674.4	36962.4	42026.9	39330.1	30285.6	30496.7
65°	2692.7	2754.7	3179.0	4756.1	5449.5	11853.1	35449.5	50481.6	49475.7	36227.7	35242.5
67.5°	2628.5	2649.2	2868.6	3992.4	5225.9	6662.3	28276.0	52062.8	53178.4	41776.5	37219.1
70°	2597.4	2669.9	3232.8	3810.3	5004.5	5619.2	16992.1	47728.9	49490.2	43227.3	34588.5
72.5°	1260.4	1256.3	1626.8	3446.0	5637.8	5828.2	8729.9	38618.2	40385.7	37450.9	28422.9
75°	1016.2	929.3	887.9	1262.5	5420.5	6018.6	5563.3	26572.6	27851.7	25109.4	17472.2
77.5°	964.5	861.0	788.5	790.6	2291.1	6382.9	4712.7	14707.1	15079.7	11341.8	4787.2
80°	798.9	703.7	651.9	734.7	1109.3	6078.7	5095.6	6656.1	6107.6	2785.8	1593.7
82.5°	554.7	505.0	490.5	616.8	887.9	4331.8	5925.5	3576.4	2999.0	1395.0	983.1
85°	353.9	302.2	335.3	449.1	691.3	1999.3	6103.5	2787.9	2216.6	885.8	554.7
87.5°	163.5	132.5	165.6	248.4	451.2	689.2	5807.5	3131.4	2282.9	467.7	349.8
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°	9052.8	9052.8	9052.8	9052.8	9052.8	9052.8	9052.8	9052.8	9052.8	9052.8	9052.8
2.5°	9056.9	9017.6	8986.6	8928.6	8864.4	8802.4	8746.5	8676.1	8655.4	8636.8	8665.8
5°	9085.9	9046.6	8932.7	8754.7	8558.1	8373.9	8189.7	8032.4	7935.2	7881.3	7912.4
7.5°	9129.4	9073.5	8837.5	8510.5	8156.6	7833.7	7500.5	7233.5	7036.9	6943.8	6970.7
10°	9168.7	9061.1	8676.1	8185.6	7668.2	7188.0	6662.3	6227.7	5904.8	5735.1	5776.5
12.5°	9185.2	9013.5	8450.5	7779.9	7070.0	6366.3	5592.3	4942.4	4478.8	4309.1	4273.9
15°	9201.8	8959.6	8202.1	7318.4	6347.7	5352.2	4267.7	3489.5	3104.5	3019.7	3001.0
17.5°	9205.9	8866.5	7920.7	6817.5	5501.2	4145.6	2918.2	2423.6	2425.7	2562.3	2578.8
20°	9162.5	8727.8	7579.2	6194.6	4487.1	2866.5	2003.5	1918.6	2231.1	2572.6	2614.0
22.5°	9063.1	8543.6	7192.1	5468.1	3326.0	1887.5	1550.2	1643.3	2046.9	2465.0	2512.6
25°	8936.9	8320.1	6734.7	4625.7	2202.1	1349.4	1299.8	1413.6	1686.8	1966.2	1993.1
27.5°	8765.1	8055.2	6221.5	3661.3	1430.1	1111.4	1144.5	1221.1	1332.9	1457.1	1469.5
30°	8543.6	7738.5	5673.0	2669.9	1080.4	999.7	1047.3	1088.7	1136.3	1206.6	1212.8
32.5°	8289.1	7434.3	5110.0	1844.1	958.3	941.7	979.0	999.7	1036.9	1080.4	1084.5
35°	8075.9	7144.5	4526.4	1303.9	906.5	898.2	923.1	931.4	966.5	1014.1	1018.3
37.5°	7953.8	6908.6	3924.1	1051.4	871.3	858.9	873.4	873.4	923.1	993.4	1003.8
40°	7962.1	6778.2	3321.8	950.0	842.4	825.8	827.9	827.9	892.0	968.6	974.8
42.5°	8187.7	6811.3	2787.9	910.7	819.6	801.0	790.6	796.8	850.6	900.3	904.5
45°	8717.5	7045.2	2287.0	885.8	796.8	790.6	767.9	765.8	786.5	809.2	809.2
47.5°	9586.8	7506.7	1947.6	869.3	778.2	776.1	749.2	722.3	720.2	728.5	728.5
50°	11000.4	8301.5	1719.9	850.6	765.8	749.2	718.2	676.8	662.3	668.5	668.5
52.5°	13119.7	9719.2	1633.0	825.8	738.9	712.0	676.8	635.4	623.0	625.0	625.0
55°	15899.3	11896.5	1620.6	796.8	709.9	666.4	637.5	606.4	591.9	596.1	596.1
57.5°	19295.6	14907.9	1842.0	751.3	670.6	620.9	604.3	583.6	573.3	579.5	577.4
60°	23424.6	18848.6	2732.0	703.7	631.3	579.5	579.5	563.0	554.7	560.9	558.8
62.5°	28180.8	23375.0	3841.3	668.5	589.9	546.4	554.7	546.4	538.1	542.3	540.2
65°	32398.8	26324.3	3597.1	641.6	548.5	515.4	529.8	525.7	519.5	523.6	521.6
67.5°	32520.9	25231.5	2020.0	612.6	509.1	484.3	505.0	502.9	498.8	502.9	500.9
70°	29023.1	21305.3	1138.3	558.8	467.7	447.1	476.0	474.0	469.8	478.1	476.0
72.5°	23252.9	15460.5	832.0	492.6	426.4	407.7	440.8	438.8	438.8	451.2	445.0
75°	13380.5	7955.9	664.4	422.2	382.9	368.4	397.4	399.4	403.6	420.1	407.7
77.5°	3814.4	2479.5	542.3	358.1	329.1	322.9	351.8	356.0	358.1	376.7	360.1
80°	1417.7	1142.5	447.1	300.1	269.1	271.1	298.0	304.2	306.3	324.9	304.2
82.5°	904.5	753.4	362.2	231.8	211.1	209.0	242.2	250.4	250.4	252.5	240.1
85°	527.8	451.2	273.2	167.6	149.0	142.8	180.1	194.5	188.3	184.2	175.9
87.5°	353.9	310.5	167.6	93.1	80.7	76.6	105.6	115.9	111.8	105.6	99.3
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)