

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: P299204

Luminaire Tested: **GLNA-AF-09-LED-E1-SL2-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299204
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-SL2-7030-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 3000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Narrow OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 40596.5 lumens
Efficiency: N/A
Efficacy: 108.5 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-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

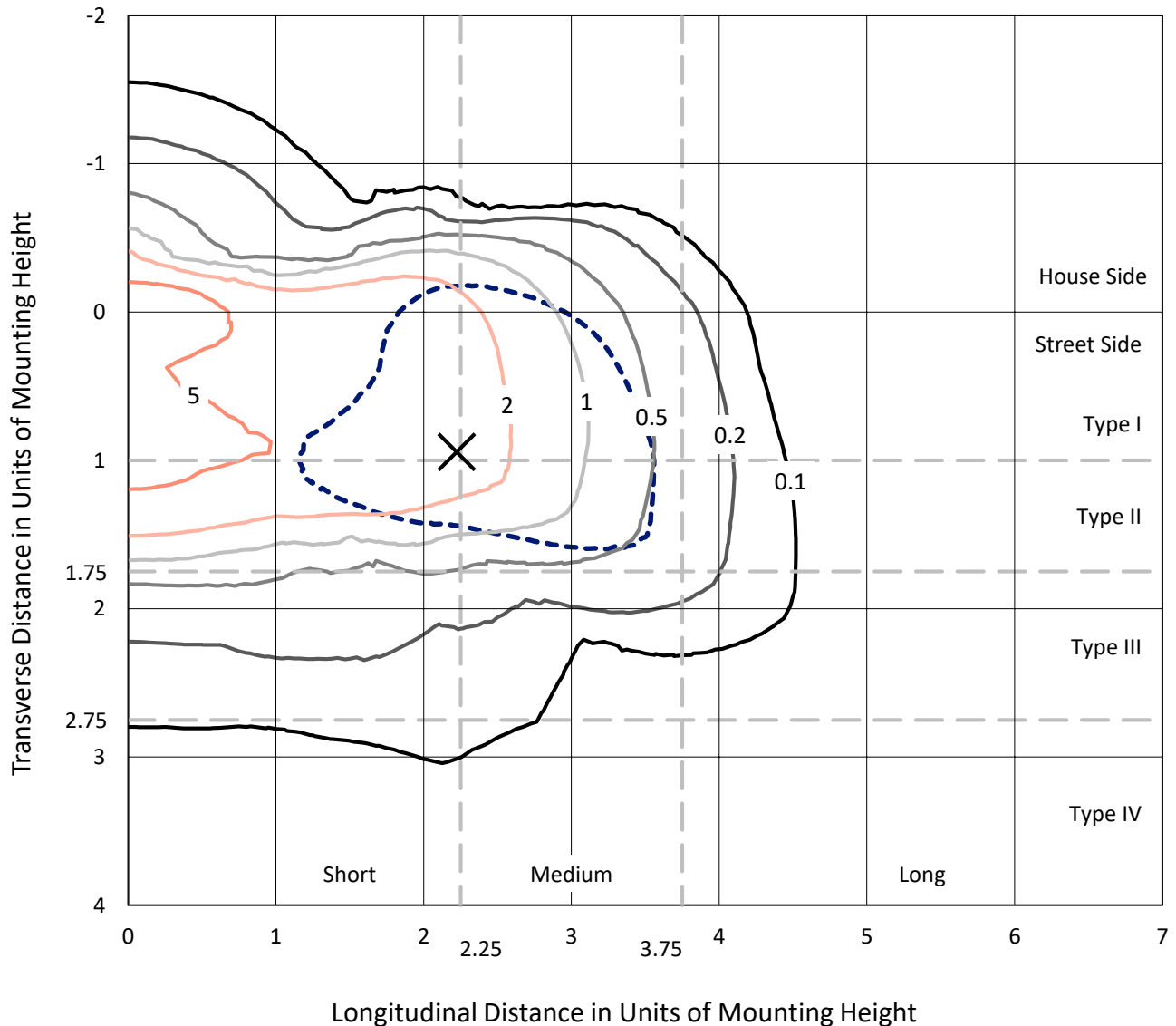


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Iso-Footcandle Lines of Horizontal Illumination

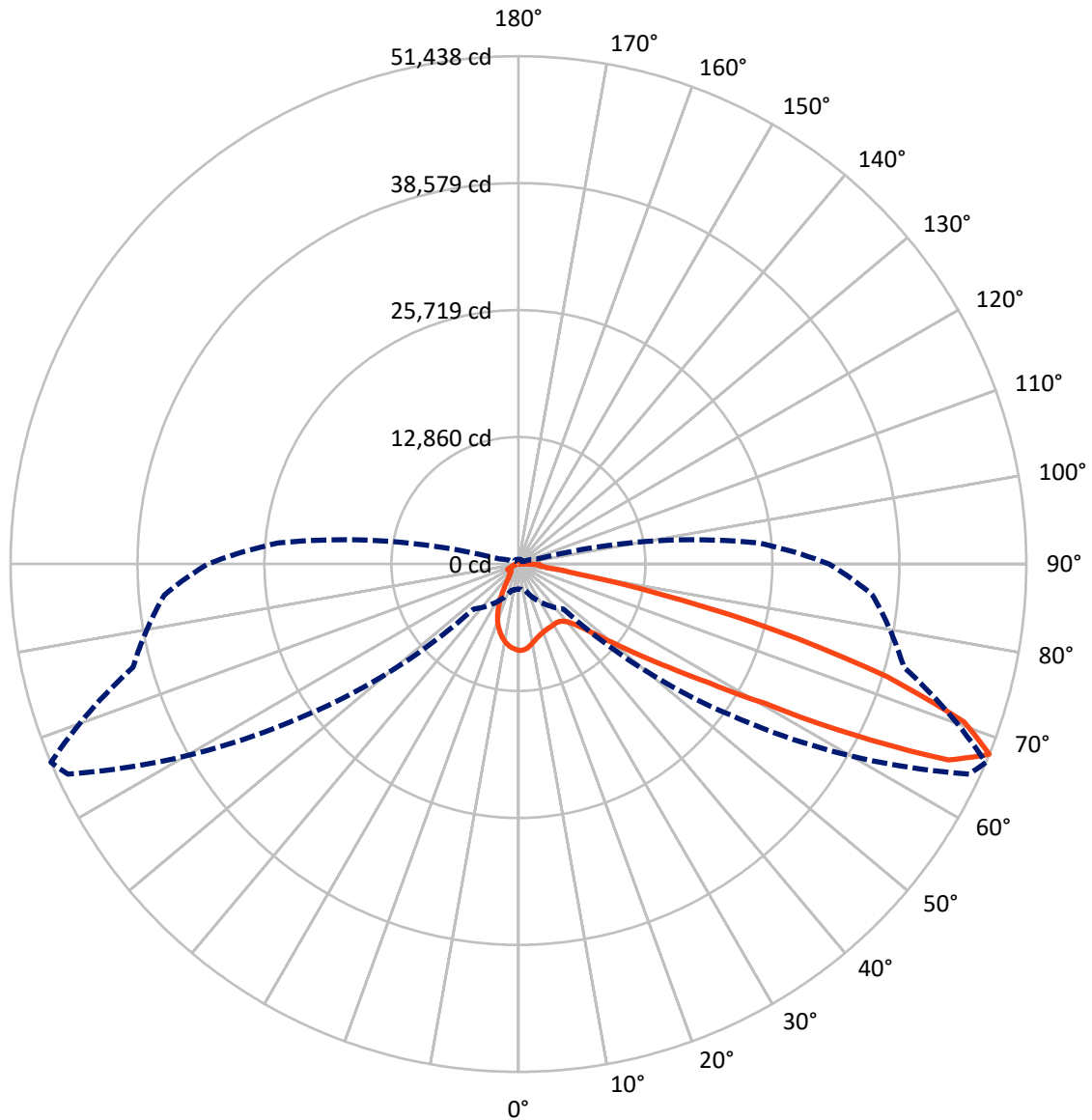
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9.7 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	6726.4	0.0	6726.4
	% Fixture	16.6	0.0	16.6
Street Side	Lumens	33870.1	0.0	33870.1
	% Fixture	83.4	0.0	83.4
Total	Lumens	40596.5	0.0	40596.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	747.1	1.8
10°-20°	1728.6	4.3
20°-30°	2343.1	5.8
30°-40°	3331.0	8.2
40°-50°	5572.9	13.7
50°-60°	8816.3	21.7
60°-70°	11231.1	27.7
70°-80°	5882.8	14.5
80°-90°	943.5	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°	40596.5	100.0
0°-180°	40596.5	100.0



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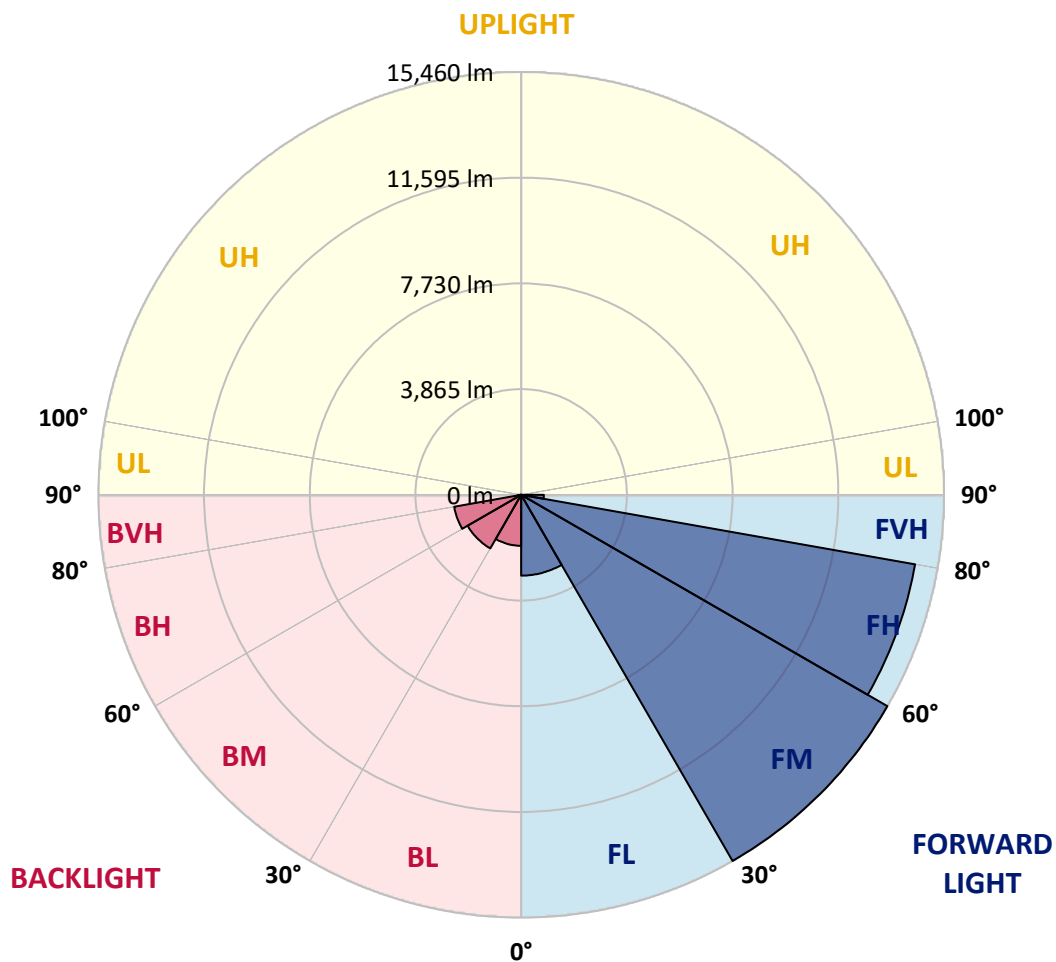
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2954.4	7.3			
FM (30°-60°)	15460.0	38.1			
FH (60°-80°)	14626.1	36.0			G5
FVH (80°-90°)	829.6	2.0			G5
BL (0°-30°)	1864.4	4.6	B3/2500		
BM (30°-60°)	2260.3	5.6	B2/2500		
BH (60°-80°)	2487.9	6.1	B3/2500		G3/2500
BVH (80°-90°)	113.9	0.3			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 II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	8756.6	8756.6	8756.6	8756.6	8756.6	8756.6	8756.6	8756.6	8756.6	8756.6	8756.6
2.5°	8396.2	8410.2	8454.3	8482.3	8608.4	8662.5	8700.5	8738.6	8744.6	8762.6	8744.6
5°	7515.4	7545.4	7627.5	7719.6	7963.8	8156.0	8358.2	8568.4	8606.4	8742.6	8780.6
7.5°	6832.7	6824.7	6892.7	7002.9	7253.1	7519.4	7873.7	8292.1	8374.2	8680.5	8828.6
10°	6334.2	6328.2	6400.3	6514.4	6752.6	7004.9	7405.2	7977.8	8093.9	8582.4	8874.7
12.5°	5965.8	5967.8	6039.9	6166.0	6408.3	6662.5	7068.9	7673.5	7821.7	8468.3	8922.7
15°	5721.6	5737.6	5795.7	5929.8	6166.0	6420.3	6818.7	7445.3	7611.4	8378.2	8976.8
17.5°	5639.5	5665.5	5685.6	5783.7	5985.9	6240.1	6630.5	7277.1	7453.3	8316.1	9024.8
20°	5715.6	5745.6	5707.6	5741.6	5869.7	6094.0	6482.3	7145.0	7325.2	8246.1	9030.8
22.5°	6041.9	6069.9	5957.8	5859.7	5851.7	5987.9	6360.2	7040.9	7227.1	8194.0	9032.8
25°	6616.5	6634.5	6446.3	6218.1	5995.9	5949.8	6274.1	6968.8	7167.0	8148.0	8994.8
27.5°	7321.2	7335.2	7119.0	6782.6	6336.2	6039.9	6244.1	6926.8	7133.0	8107.9	8930.7
30°	8178.0	8244.1	7953.8	7529.4	6878.7	6306.2	6304.2	6904.8	7094.9	8039.9	8804.6
32.5°	9054.9	9082.9	8882.7	8452.3	7609.4	6774.6	6472.3	6920.8	7084.9	7957.8	8644.5
35°	9943.7	9979.8	9849.6	9503.3	8608.4	7461.3	6800.7	7014.9	7147.0	7929.8	8532.3
37.5°	11094.9	11142.9	10962.7	10562.3	9823.6	8392.2	7347.2	7251.1	7337.2	8009.8	8498.3
40°	12914.6	12892.6	12366.1	11769.5	11152.9	9583.4	8128.0	7651.5	7701.5	8268.1	8602.4
42.5°	15032.7	14978.7	14071.8	13134.9	12614.3	11024.8	9161.0	8346.2	8336.2	8776.6	8968.8
45°	16722.4	16678.3	15861.5	14706.4	14290.0	12666.4	10496.3	9381.2	9307.1	9583.4	9645.4
47.5°	17637.3	17639.3	17168.8	16225.9	16215.9	14752.4	12212.0	10878.6	10750.5	10880.6	10814.6
50°	17316.9	17359.0	17308.9	17008.6	17973.6	17487.1	14452.1	12966.7	12708.4	12836.6	12582.3
52.5°	15767.4	15821.5	16117.8	16578.2	18712.3	20792.3	17743.4	15561.2	15260.9	15214.9	14932.6
55°	13020.7	13086.8	13691.4	14942.6	18097.7	23012.5	22936.4	18868.5	18390.0	17955.6	17835.5
57.5°	8974.8	9084.9	10057.8	11915.7	16109.8	23683.2	29120.5	23583.1	22610.1	21092.6	21120.7
60°	5059.0	5187.1	6334.2	8021.8	12097.8	22954.5	33825.1	30724.1	28670.1	24766.2	24974.4
62.5°	3217.1	3355.3	4226.1	5573.5	7259.1	19030.6	35753.0	40651.8	38043.2	29294.7	29498.9
65°	2604.5	2664.6	3075.0	4600.5	5271.2	11465.2	34289.6	48829.8	47856.8	35042.3	34089.4
67.5°	2542.5	2562.5	2774.7	3861.8	5054.9	6444.3	27350.8	50359.3	51438.3	40409.5	36001.2
70°	2512.5	2582.5	3127.1	3685.6	4840.7	5435.3	16436.1	46167.2	47870.8	41812.9	33456.7
72.5°	1219.2	1215.2	1573.5	3333.3	5453.3	5637.5	8444.3	37354.6	39064.2	36225.4	27492.9
75°	983.0	898.9	858.8	1221.2	5243.1	5821.7	5381.3	25703.2	26940.4	24287.8	16900.5
77.5°	932.9	832.8	762.7	764.7	2216.2	6174.0	4558.5	14225.9	14586.3	10970.7	4630.5
80°	772.8	680.7	630.6	710.7	1073.1	5879.8	4928.8	6438.3	5907.8	2694.6	1541.5
82.5°	536.5	488.5	474.5	596.6	858.8	4190.1	5731.6	3459.4	2900.8	1349.3	950.9
85°	342.3	292.3	324.3	434.4	668.7	1933.9	5903.8	2696.6	2144.1	856.8	536.5
87.5°	158.2	128.1	160.2	240.2	436.4	666.7	5617.5	3029.0	2208.2	452.4	338.3
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°	8756.6	8756.6	8756.6	8756.6	8756.6	8756.6	8756.6	8756.6	8756.6	8756.6	8756.6
2.5°	8760.6	8722.5	8692.5	8636.5	8574.4	8514.3	8460.3	8392.2	8372.2	8354.2	8382.2
5°	8788.6	8750.6	8640.5	8468.3	8278.1	8099.9	7921.8	7769.6	7675.5	7623.5	7653.5
7.5°	8830.6	8776.6	8548.4	8232.1	7889.7	7577.4	7255.1	6996.8	6806.7	6716.6	6742.6
10°	8868.7	8764.6	8392.2	7917.7	7417.3	6952.8	6444.3	6023.9	5711.6	5547.4	5587.5
12.5°	8884.7	8718.5	8174.0	7525.4	6838.7	6158.0	5409.3	4780.7	4332.2	4168.1	4134.0
15°	8900.7	8666.5	7933.8	7078.9	6140.0	5177.1	4128.0	3375.3	3002.9	2920.9	2902.8
17.5°	8904.7	8576.4	7661.5	6594.5	5321.2	4009.9	2822.8	2344.3	2346.3	2478.4	2494.4
20°	8862.7	8442.3	7331.2	5991.9	4340.2	2772.7	1937.9	1855.8	2158.1	2488.4	2528.5
22.5°	8766.6	8264.1	6956.8	5289.2	3217.1	1825.8	1499.5	1589.6	1979.9	2384.3	2430.4
25°	8644.5	8047.9	6514.4	4474.4	2130.1	1305.3	1257.2	1367.3	1631.6	1901.9	1927.9
27.5°	8478.3	7791.6	6017.9	3541.5	1383.4	1075.1	1107.1	1181.2	1289.3	1409.4	1421.4
30°	8264.1	7485.3	5487.4	2582.5	1045.0	966.9	1013.0	1053.0	1099.1	1167.1	1173.1
32.5°	8017.8	7191.0	4942.8	1783.7	926.9	910.9	946.9	966.9	1003.0	1045.0	1049.0
35°	7811.6	6910.8	4378.3	1261.2	876.9	868.9	892.9	900.9	934.9	981.0	985.0
37.5°	7693.5	6682.5	3795.7	1017.0	842.8	830.8	844.8	844.8	892.9	960.9	971.0
40°	7701.5	6556.4	3213.1	918.9	814.8	798.8	800.8	800.8	862.8	936.9	942.9
42.5°	7919.8	6588.4	2696.6	880.9	792.8	774.8	764.7	770.8	822.8	870.9	874.9
45°	8432.3	6814.7	2212.2	856.8	770.8	764.7	742.7	740.7	760.7	782.8	782.8
47.5°	9273.1	7261.1	1883.8	840.8	752.7	750.7	724.7	698.7	696.7	704.7	704.7
50°	10640.4	8029.9	1663.6	822.8	740.7	724.7	694.7	654.6	640.6	646.6	646.6
52.5°	12690.4	9401.2	1579.5	798.8	714.7	688.7	654.6	614.6	602.6	604.6	604.6
55°	15379.0	11507.3	1567.5	770.8	686.7	644.6	616.6	586.6	572.6	576.6	576.6
57.5°	18664.3	14420.1	1781.7	726.7	648.6	600.6	584.6	564.6	554.5	560.5	558.5
60°	22658.2	18231.8	2642.6	680.7	610.6	560.5	560.5	544.5	536.5	542.5	540.5
62.5°	27258.7	22610.1	3715.6	646.6	570.6	528.5	536.5	528.5	520.5	524.5	522.5
65°	31338.7	25462.9	3479.4	620.6	530.5	498.5	512.5	508.5	502.5	506.5	504.5
67.5°	31456.8	24405.9	1953.9	592.6	492.5	468.5	488.5	486.5	482.5	486.5	484.5
70°	28073.5	20608.2	1101.1	540.5	452.4	432.4	460.5	458.4	454.4	462.5	460.5
72.5°	22492.0	14954.6	804.8	476.5	412.4	394.4	426.4	424.4	424.4	436.4	430.4
75°	12942.7	7695.5	642.6	408.4	370.4	356.3	384.4	386.4	390.4	406.4	394.4
77.5°	3689.6	2398.3	524.5	346.3	318.3	312.3	340.3	344.3	346.3	364.4	348.3
80°	1371.3	1105.1	432.4	290.3	260.3	262.3	288.3	294.3	296.3	314.3	294.3
82.5°	874.9	728.7	350.3	224.2	204.2	202.2	234.2	242.2	242.2	244.2	232.2
85°	510.5	436.4	264.3	162.2	144.1	138.1	174.2	188.2	182.2	178.2	170.2
87.5°	342.3	300.3	162.2	90.1	78.1	74.1	102.1	112.1	108.1	102.1	96.1
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)