

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: P299872

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299872  
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  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(10) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V  
Square Medium OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 58718 lumens  
Efficiency: N/A  
Efficacy: 105.2 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type III - Medium - Non-Cutoff  
BUG Rating: B4 - U0 - G5

Input Watts (W): 558  
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

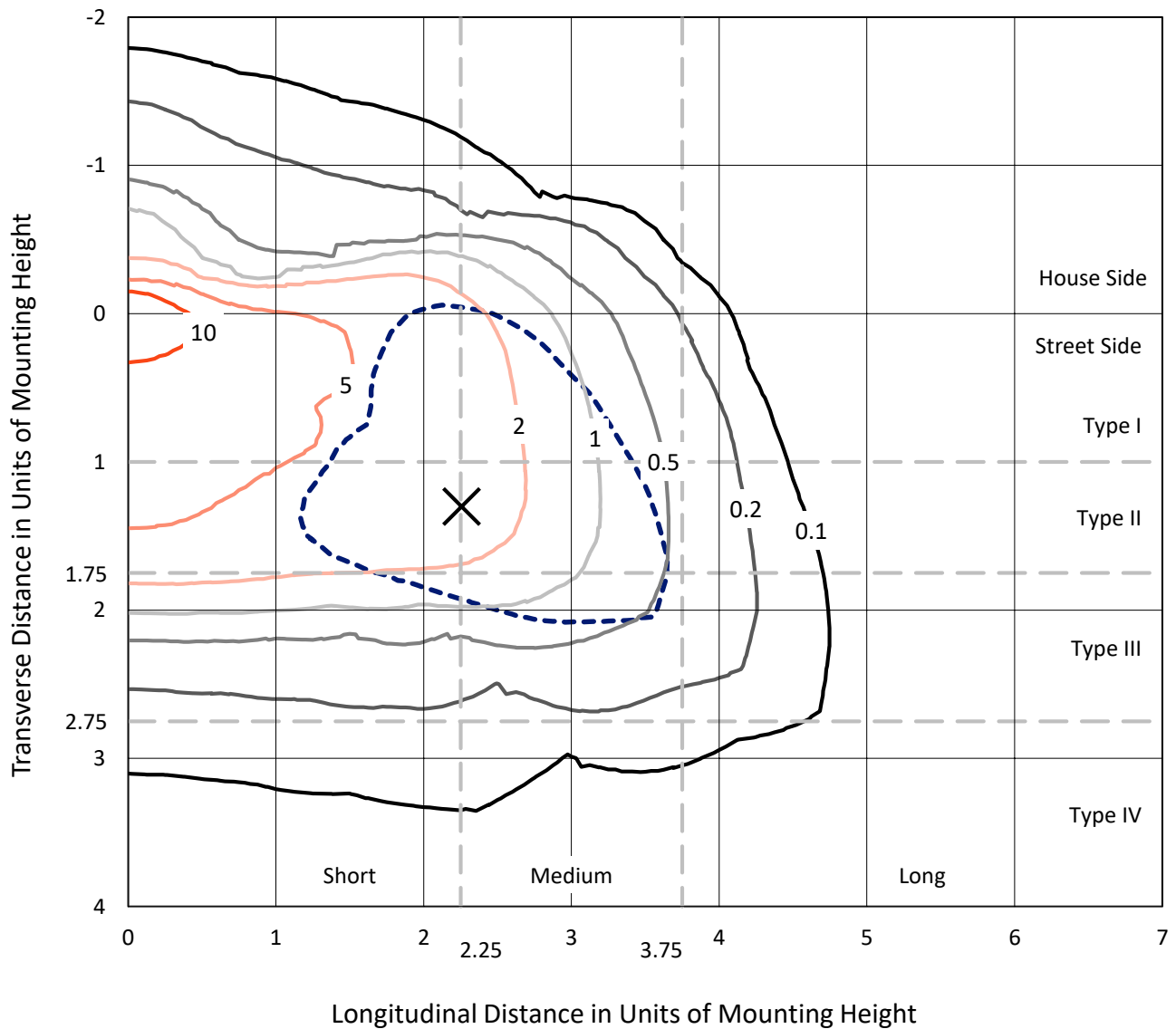


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

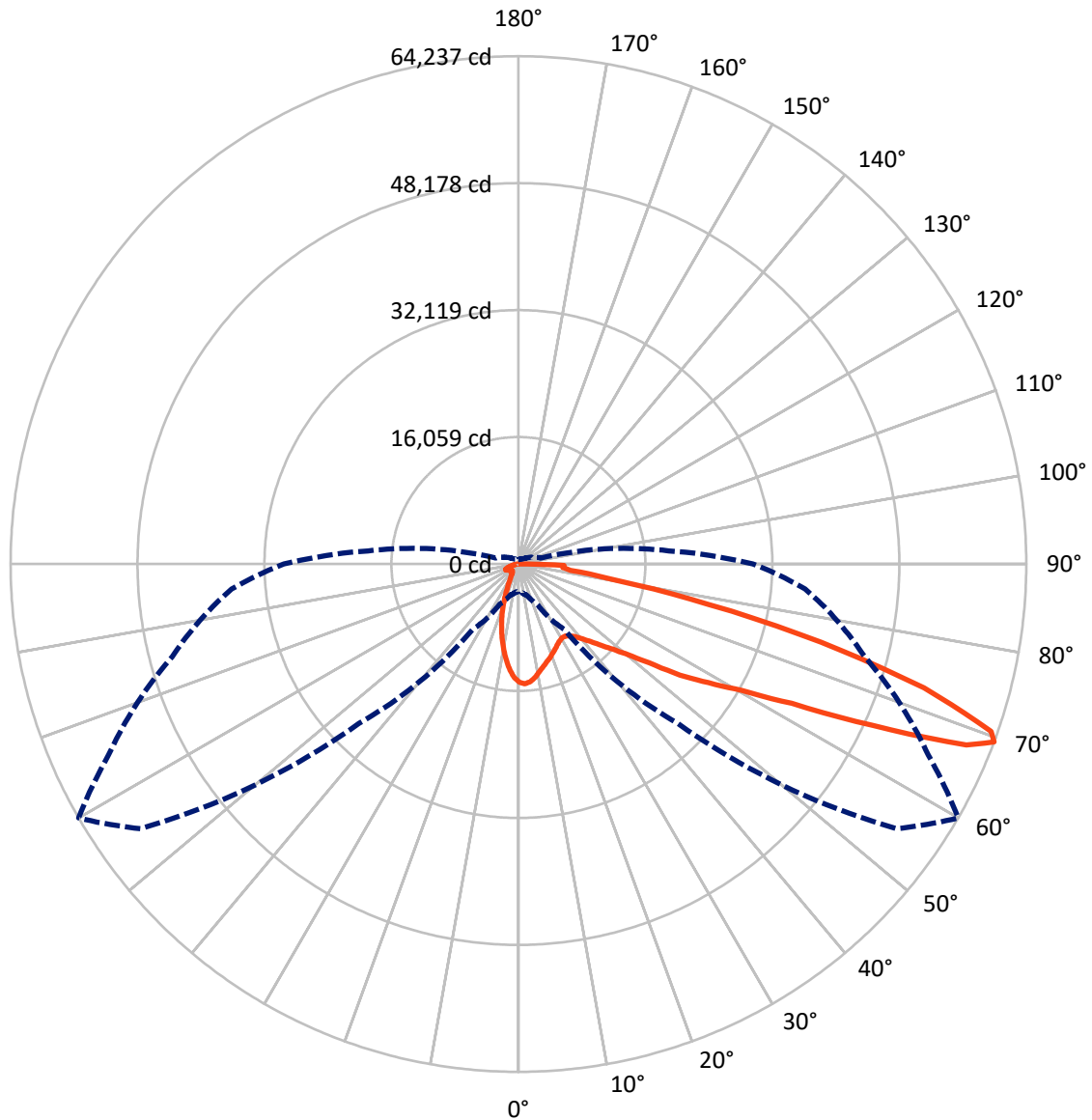


Based on 30 foot mounting height. Maximum calculated value = 16.6 fc  
 Type III - Medium - Non-Cutoff

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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
<b>House Side</b>	Lumens	8353.7	0.0	8353.7
	% Fixture	14.2	0.0	14.2
<b>Street Side</b>	Lumens	50364.3	0.0	50364.3
	% Fixture	85.8	0.0	85.8
<b>Total</b>	Lumens	58718.0	0.0	58718.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1265.1	2.2
10°-20°	2695.4	4.6
20°-30°	3434.4	5.8
30°-40°	4721.5	8.0
40°-50°	7661.0	13.0
50°-60°	12286.3	20.9
60°-70°	16352.2	27.8
70°-80°	8828.9	15.0
80°-90°	1473.2	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°	58718.0	100.0
0°-180°	58718.0	100.0



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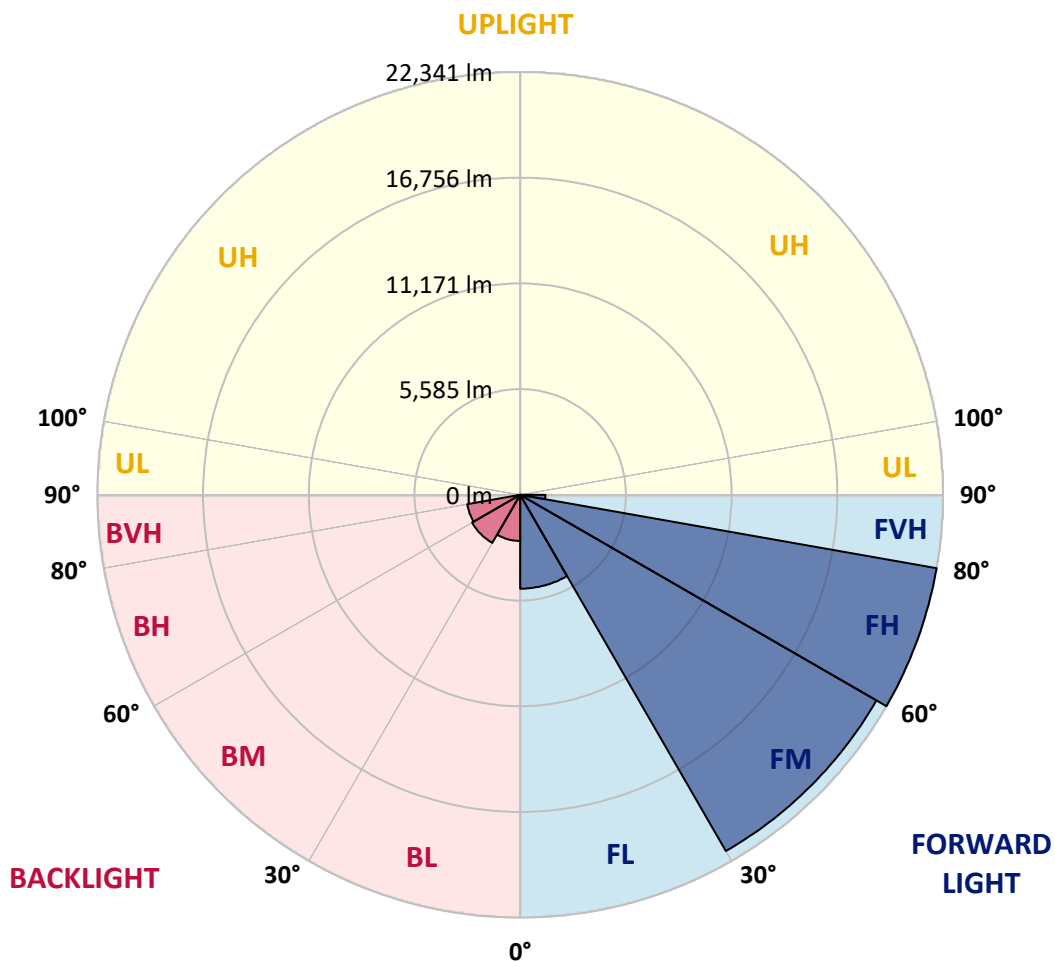
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4957.9	8.4			
FM	(30°-60°)	21734.0	37.0			
FH	(60°-80°)	22341.1	38.0			G5
FVH	(80°-90°)	1331.3	2.3			G5
BL	(0°-30°)	2437.0	4.2	B3/2500		
BM	(30°-60°)	2934.8	5.0	B3/5000		
BH	(60°-80°)	2840.0	4.8	B4/5000		G4/5000
BVH	(80°-90°)	141.9	0.2			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 III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	14962.2	14962.2	14962.2	14962.2	14962.2	14962.2	14962.2	14962.2	14962.2	14962.2	14962.2
2.5°	15268.6	15302.6	15288.4	15279.9	15305.5	15265.7	15183.5	15158.0	15118.3	15024.6	14865.8
5°	14695.6	14797.7	14792.1	14868.6	14996.3	15030.3	14993.4	14999.1	14925.4	14809.1	14545.3
7.5°	13705.7	13748.2	13770.9	13938.3	14170.9	14358.1	14516.9	14568.0	14533.9	14434.7	14094.3
10°	12684.6	12718.6	12772.5	12968.2	13263.2	13521.3	13822.0	13995.0	14068.8	14051.7	13671.7
12.5°	11808.1	11842.2	11913.1	12134.3	12486.0	12803.7	13240.5	13456.1	13632.0	13736.9	13328.5
15°	11022.4	11096.2	11164.2	11419.5	11813.8	12230.8	12724.3	12996.6	13268.9	13504.3	13025.0
17.5°	10409.8	10483.5	10523.2	10755.8	11175.6	11686.2	12264.8	12585.3	12925.7	13311.4	12724.3
20°	10055.2	10089.2	10072.2	10202.7	10579.9	11121.7	11808.1	12179.7	12591.0	13129.9	12423.6
22.5°	9955.9	9958.8	9896.4	9882.2	10126.1	10582.8	11320.3	11771.2	12276.1	13010.8	12165.5
25°	10197.0	10188.5	10018.3	9879.3	9904.9	10171.5	10849.4	11374.1	12012.3	12985.2	11967.0
27.5°	10733.1	10758.6	10506.2	10245.2	9987.1	9978.6	10492.0	11045.1	11796.8	13101.5	11881.9
30°	11484.8	11527.3	11257.8	10926.0	10441.0	10041.0	10353.0	10849.4	11663.5	13342.6	11867.7
32.5°	12307.3	12352.7	12148.5	11799.6	11164.2	10426.8	10449.5	10866.4	11657.8	13680.2	11964.1
35°	13183.8	13234.9	13129.9	12834.9	12128.6	11138.7	10818.2	11141.6	11842.2	14196.4	12222.2
37.5°	14162.4	14241.8	14270.2	13989.3	13234.9	12077.6	11422.4	11663.5	12259.1	14914.0	12695.9
40°	15572.1	15682.7	15674.2	15271.4	14502.7	13345.5	12355.6	12418.0	12908.7	15872.7	13453.3
42.5°	18272.4	18295.1	17588.8	16712.3	15898.3	14678.6	13456.1	13405.0	13805.0	17086.7	14568.0
45°	21707.3	21613.7	20042.3	18349.0	17356.2	16210.3	14888.5	14638.9	14942.4	18567.4	15963.5
47.5°	24557.9	24342.4	22356.9	20019.6	18899.2	17875.3	16570.5	16133.7	16301.0	20246.5	17767.5
50°	25547.9	25386.2	23741.0	21409.5	20360.0	19906.2	18641.1	18022.8	18068.2	22249.1	19880.6
52.5°	25335.1	25312.4	24214.7	22325.7	21727.2	22039.2	21574.0	20737.2	20294.8	24472.8	22161.1
55°	24833.1	24881.3	24484.2	23392.2	23290.0	24098.4	25406.0	24787.7	23412.0	26716.5	24518.2
57.5°	23088.7	23213.5	24087.1	24733.8	25806.0	27008.6	28492.1	28316.2	26767.5	29141.6	27320.6
60°	18601.4	18890.7	21233.6	24472.8	28395.7	32156.8	32820.5	32412.1	30228.0	32151.1	31022.2
62.5°	13033.5	13334.1	16119.5	21188.2	27970.2	37971.5	40558.3	38796.9	35197.4	36584.5	35813.0
65°	6977.7	7122.3	9249.6	14701.3	23613.4	39171.3	51867.2	49186.8	43065.7	42050.3	39911.6
67.5°	3849.1	3928.5	4742.5	7423.0	15123.9	34494.0	59071.8	61097.0	52899.7	45689.5	39165.6
69°	3480.3	3554.1	4087.3	5621.8	10120.4	28520.5	58368.4	64237.0	57211.1	45329.2	36408.6
70°	3403.7	3471.8	3951.2	5182.2	8191.7	23508.5	56011.3	63434.3	58237.9	44038.6	34003.3
72.5°	3063.4	3137.1	3602.3	4654.6	7000.3	11720.2	44367.7	53634.3	52874.2	38184.2	25791.8
75°	2856.3	2924.4	3712.9	4558.2	6702.5	7417.3	29249.4	39528.7	38867.8	26710.8	13907.1
77.5°	1222.5	1216.8	1721.7	3857.6	6801.8	7181.9	15716.7	24694.1	22529.9	11416.7	3993.7
80°	816.9	802.7	816.9	1134.6	6237.3	7221.6	8234.2	12534.3	9468.1	2910.2	1968.5
82.5°	703.4	692.1	717.6	692.1	2192.6	8242.7	7000.3	6665.6	4501.4	1653.6	975.7
85°	473.7	453.8	618.3	621.2	1035.3	7323.7	7885.3	5630.3	3642.0	981.4	482.2
87.5°	226.9	221.2	360.2	439.6	607.0	2975.4	8846.9	5769.3	3673.2	502.1	229.8
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°	14962.2	14962.2	14962.2	14962.2	14962.2	14962.2	14962.2	14962.2	14962.2	14962.2	14962.2
2.5°	14817.6	14701.3	14587.8	14451.7	14309.9	14151.0	14071.6	13992.2	13972.3	13949.6	13870.2
5°	14409.1	14244.6	13961.0	13649.0	13319.9	12999.4	12755.5	12602.3	12486.0	12426.5	12321.5
7.5°	13881.6	13640.5	13144.1	12605.2	12052.1	11547.2	11110.4	10835.2	10574.3	10452.3	10313.3
10°	13379.5	13019.3	12247.8	11453.6	10659.4	9896.4	9178.7	8671.0	8220.0	7967.6	7788.9
12.5°	12948.4	12454.8	11385.5	10310.5	9221.3	8134.9	7059.9	6214.7	5508.4	5136.8	4946.8
15°	12528.6	11932.9	10565.8	9201.4	7803.1	6325.3	4912.7	3954.0	3369.7	3137.1	3057.7
17.5°	12148.5	11385.5	9743.2	8083.9	6339.5	4552.5	3301.6	2774.0	2550.0	2473.4	2447.9
20°	11737.2	10832.4	8889.4	6915.3	4813.4	3182.5	2578.3	2345.7	2255.0	2232.3	2220.9
22.5°	11340.1	10287.8	8072.5	5664.4	3457.6	2456.4	2215.3	2118.8	2104.6	2124.5	2124.5
25°	11002.6	9799.9	7190.4	4356.8	2538.6	2067.8	1982.7	1960.0	2013.9	2087.6	2101.8
27.5°	10750.1	9400.0	6251.5	3216.5	2022.4	1798.3	1795.5	1832.3	1965.7	2107.5	2135.8
30°	10577.1	9019.9	5247.4	2320.2	1696.2	1582.7	1628.1	1707.5	1903.3	2104.6	2158.5
32.5°	10489.2	8739.1	4200.8	1795.5	1452.3	1389.9	1466.4	1562.9	1755.8	1943.0	2013.9
35°	10557.2	8532.0	3213.7	1497.6	1282.1	1233.9	1313.3	1406.9	1520.3	1599.8	1653.6
37.5°	10812.5	8449.8	2425.2	1341.6	1165.8	1120.4	1182.8	1236.7	1282.1	1304.8	1330.3
40°	11362.8	8537.7	1943.0	1262.2	1100.5	1043.8	1069.3	1089.2	1117.6	1140.3	1151.6
42.5°	12174.0	8801.5	1741.6	1231.0	1066.5	984.2	978.6	987.1	1024.0	1066.5	1075.0
45°	13308.6	9266.7	1727.4	1250.9	1049.5	936.0	910.5	921.8	978.6	1043.8	1055.2
47.5°	14758.0	9975.8	1840.9	1310.4	1063.7	910.5	868.0	882.1	953.0	1041.0	1055.2
50°	16513.8	10965.7	2030.9	1398.4	1126.1	916.2	853.8	862.3	936.0	1032.5	1046.6
52.5°	18587.2	12369.7	2238.0	1483.5	1191.3	953.0	865.1	845.3	913.3	998.4	1015.4
55°	20893.3	14170.9	2450.7	1560.0	1225.3	998.4	887.8	822.6	870.8	941.7	955.9
57.5°	23724.0	16689.6	2819.4	1633.8	1248.0	1029.6	910.5	799.9	816.9	868.0	879.3
60°	27556.1	20252.2	3469.0	1755.8	1299.1	1041.0	907.7	780.0	763.0	791.4	797.0
62.5°	32148.3	24121.1	4010.7	1908.9	1384.2	1049.5	890.6	765.8	717.6	717.6	723.3
65°	34874.1	25156.4	3710.1	2036.6	1455.1	1041.0	870.8	751.7	683.6	652.4	655.2
67.5°	32562.4	22124.3	3179.7	2062.1	1452.3	1001.3	839.6	726.1	649.5	601.3	598.5
69°	29666.4	19089.3	2941.4	1994.0	1384.2	950.2	799.9	697.8	624.0	573.0	570.1
70°	27332.0	17237.1	2785.4	1920.3	1310.4	913.3	768.7	672.2	604.2	555.9	550.3
72.5°	19872.1	11294.7	2379.8	1650.8	1080.7	765.8	663.7	590.0	538.9	510.6	504.9
75°	9930.4	5386.4	1931.6	1338.8	828.2	612.7	544.6	493.5	468.0	462.3	459.5
77.5°	3261.9	2467.7	1381.3	998.4	615.5	479.4	439.6	402.8	397.1	414.1	408.4
80°	1792.6	1435.2	876.5	660.9	419.8	351.7	346.0	326.2	334.7	363.1	357.4
82.5°	913.3	746.0	541.8	397.1	283.6	252.4	275.1	263.8	275.1	300.7	297.8
85°	451.0	408.4	343.2	241.1	187.2	161.7	195.7	204.2	209.9	229.8	229.8
87.5°	261.0	241.1	181.5	113.5	93.6	85.1	113.5	110.6	130.5	141.8	139.0
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)