

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: P299855

Luminaire Tested: **GLNA-AF-07-LED-E1-SL3-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299855  
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-07-LED-E1-SL3-7050  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(7) 70 CRI, 5000K 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: 41960.9 lumens  
Efficiency: N/A  
Efficacy: 107.3 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type III - Medium - Non-Cutoff  
BUG Rating: B3 - U0 - G5

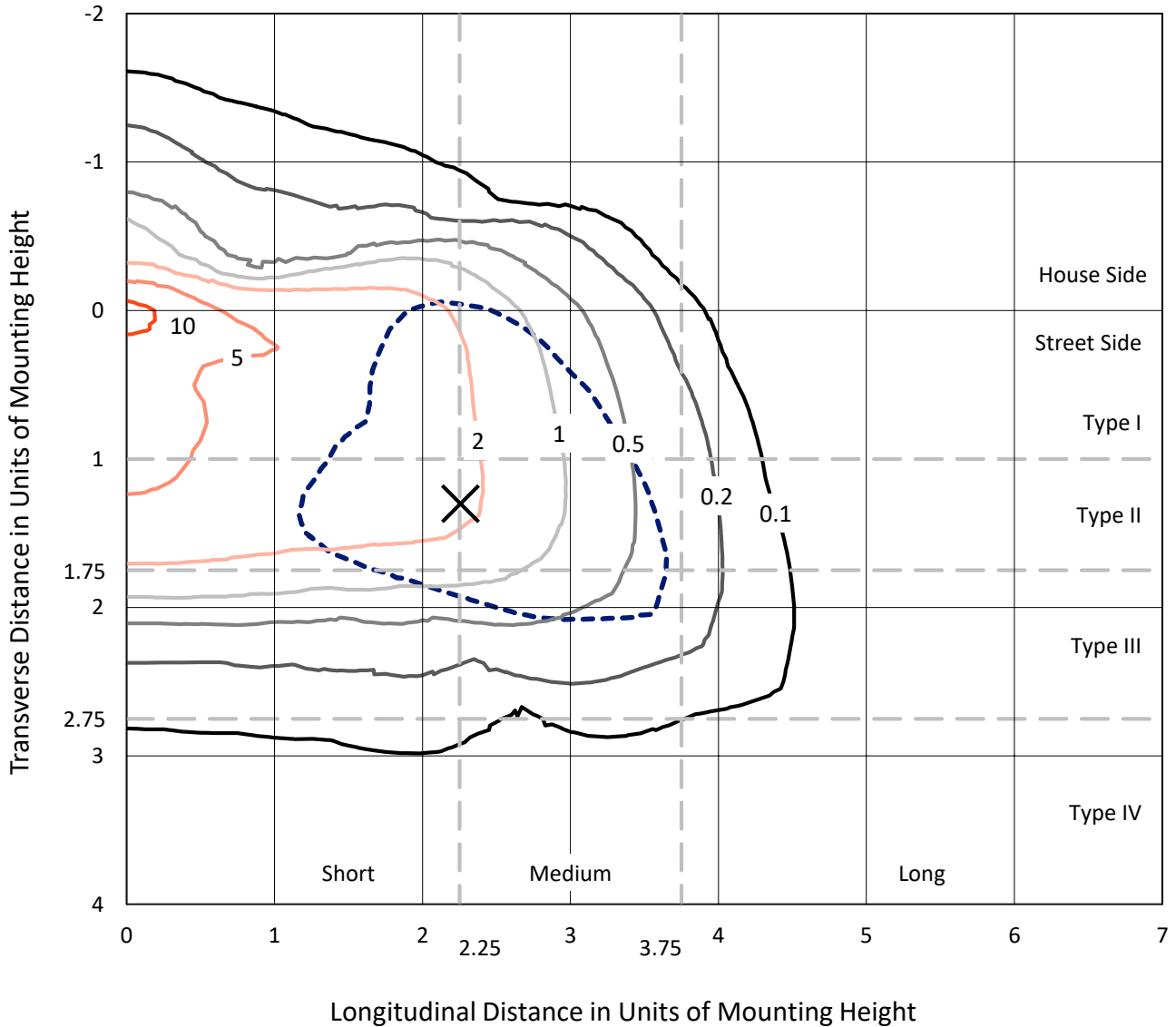
Input Watts (W): 391  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

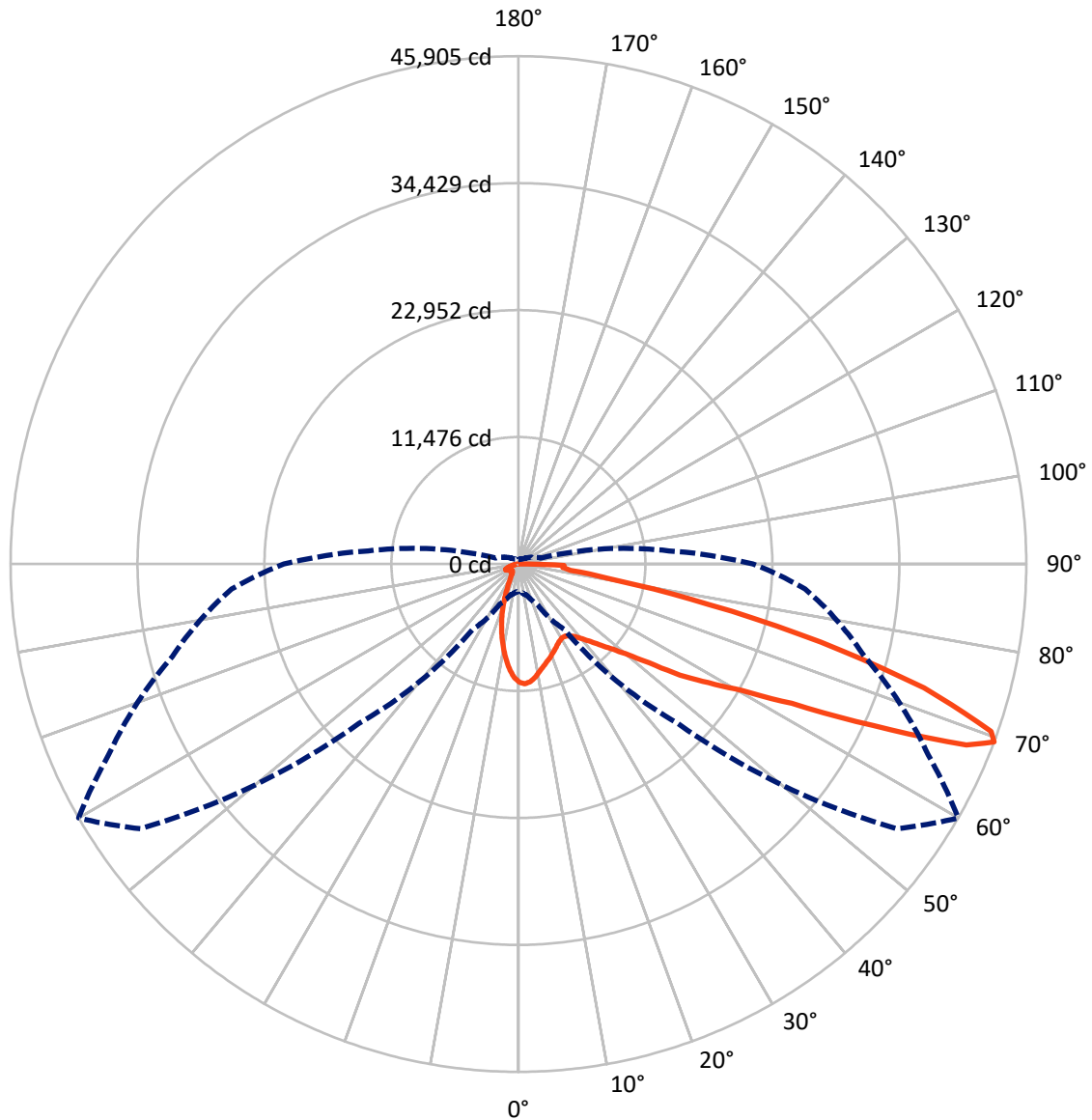
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 11.9 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	5969.7	0.0	5969.7
	% Fixture	14.2	0.0	14.2
<b>Street Side</b>	Lumens	35991.2	0.0	35991.2
	% Fixture	85.8	0.0	85.8
<b>Total</b>	Lumens	41960.9	0.0	41960.9
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	904.1	2.2
10°-20°	1926.2	4.6
20°-30°	2454.3	5.8
30°-40°	3374.0	8.0
40°-50°	5474.7	13.0
50°-60°	8780.0	20.9
60°-70°	11685.5	27.8
70°-80°	6309.3	15.0
80°-90°	1052.7	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°	41960.9	100.0
0°-180°	41960.9	100.0

**Coefficient of Utilization**



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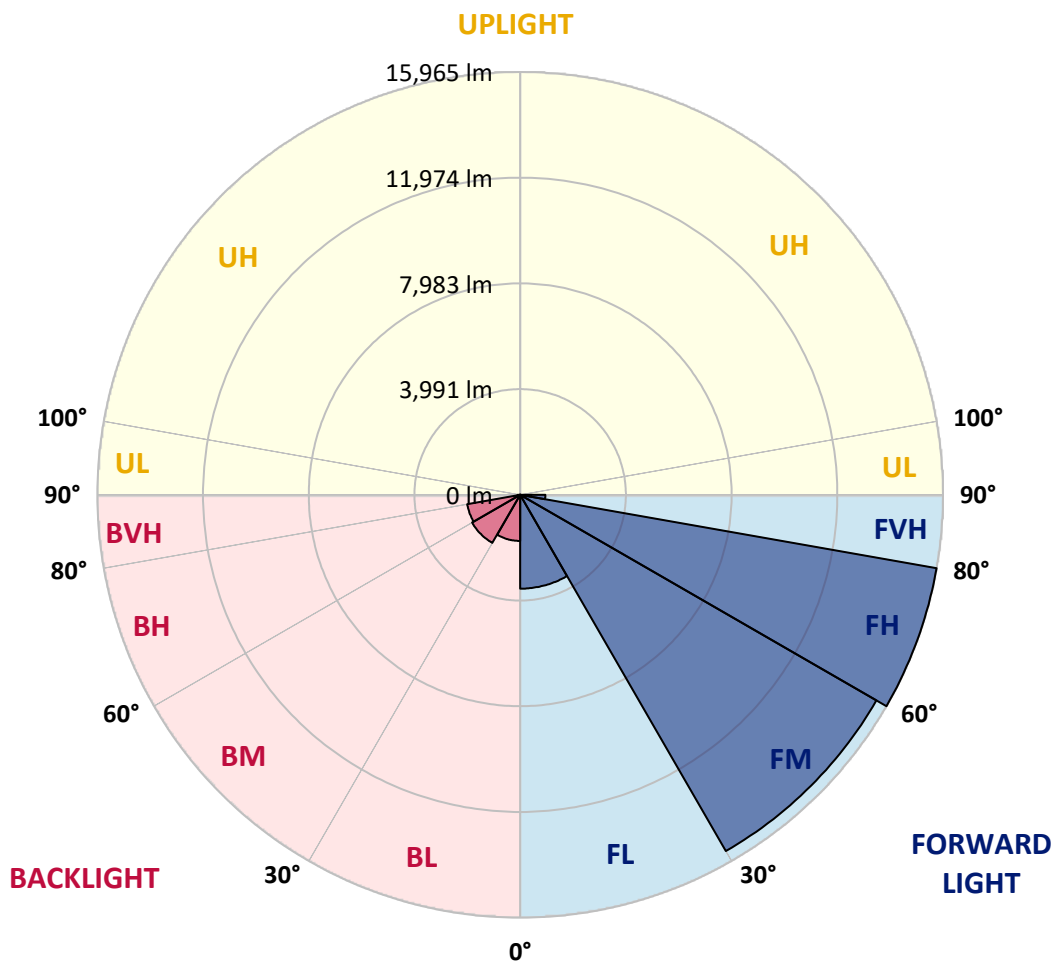
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3543.0	8.4			
FM	(30°-60°)	15531.5	37.0			
FH	(60°-80°)	15965.3	38.0			G5
FVH	(80°-90°)	951.4	2.3			G5
BL	(0°-30°)	1741.5	4.2	B3/2500		
BM	(30°-60°)	2097.3	5.0	B2/2500		
BH	(60°-80°)	2029.5	4.8	B3/2500		G3/2500
BVH	(80°-90°)	101.4	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°	10692.3	10692.3	10692.3	10692.3	10692.3	10692.3	10692.3	10692.3	10692.3	10692.3	10692.3
2.5°	10911.2	10935.5	10925.4	10919.3	10937.5	10909.2	10850.4	10832.1	10803.8	10736.9	10623.4
5°	10501.7	10574.7	10570.7	10625.4	10716.6	10740.9	10714.6	10718.6	10665.9	10582.8	10394.3
7.5°	9794.3	9824.7	9840.9	9960.5	10126.7	10260.5	10374.0	10410.5	10386.2	10315.3	10072.0
10°	9064.6	9088.9	9127.5	9267.3	9478.1	9662.6	9877.4	10001.1	10053.8	10041.6	9770.0
12.5°	8438.3	8462.6	8513.3	8671.4	8922.7	9149.7	9461.9	9616.0	9741.6	9816.6	9524.7
15°	7876.8	7929.5	7978.2	8160.6	8442.3	8740.3	9093.0	9287.6	9482.2	9650.4	9307.9
17.5°	7439.0	7491.7	7520.1	7686.3	7986.3	8351.1	8764.6	8993.7	9236.9	9512.6	9093.0
20°	7185.6	7209.9	7197.8	7291.0	7560.6	7947.8	8438.3	8703.8	8997.7	9382.8	8878.1
22.5°	7114.7	7116.7	7072.1	7062.0	7236.3	7562.6	8089.6	8411.9	8772.7	9297.7	8693.7
25°	7287.0	7280.9	7159.3	7059.9	7078.2	7268.7	7753.2	8128.2	8584.2	9279.5	8551.8
27.5°	7670.1	7688.3	7507.9	7321.4	7137.0	7130.9	7497.8	7893.0	8430.2	9362.6	8491.0
30°	8207.2	8237.6	8045.0	7807.9	7461.3	7175.5	7398.4	7753.2	8334.9	9534.9	8480.8
32.5°	8795.0	8827.5	8681.5	8432.2	7978.2	7451.1	7467.4	7765.3	8330.9	9776.1	8549.8
35°	9421.4	9457.8	9382.8	9172.0	8667.3	7959.9	7730.9	7961.9	8462.6	10145.0	8734.2
37.5°	10120.7	10177.4	10197.7	9997.0	9457.8	8630.8	8162.6	8334.9	8760.6	10657.8	9072.7
40°	11128.1	11207.1	11201.0	10913.2	10363.9	9536.9	8829.5	8874.1	9224.7	11342.9	9613.9
42.5°	13057.7	13074.0	12569.2	11942.9	11361.2	10489.6	9616.0	9579.5	9865.3	12210.5	10410.5
45°	15512.4	15445.5	14322.6	13112.5	12403.0	11584.1	10639.6	10461.2	10678.1	13268.6	11407.8
47.5°	17549.5	17395.5	15976.6	14306.4	13505.7	12774.0	11841.6	11529.4	11649.0	14468.5	12696.9
50°	18256.9	18141.4	16965.7	15299.6	14549.6	14225.3	13321.3	12879.4	12911.8	15899.6	14207.0
52.5°	18104.9	18088.7	17304.3	15954.3	15526.6	15749.6	15417.1	14819.2	14503.0	17488.7	15836.7
55°	17746.1	17780.6	17496.8	16716.4	16643.5	17221.1	18155.6	17713.7	16730.6	19092.0	17521.1
57.5°	16499.5	16588.7	17213.0	17675.2	18441.4	19300.8	20360.9	20235.3	19128.5	20825.1	19523.8
60°	13292.9	13499.6	15173.9	17488.7	20292.0	22979.8	23454.1	23162.2	21601.4	22975.7	22169.0
62.5°	9313.9	9528.8	11519.3	15141.5	19988.0	27135.1	28983.7	27724.9	25152.7	26143.9	25592.5
65°	4986.3	5089.7	6610.0	10505.8	16874.5	27992.5	37065.2	35149.7	30775.5	30049.8	28521.5
67.5°	2750.6	2807.4	3389.1	5304.6	10807.8	24650.0	42213.7	43661.0	37803.0	32650.5	27988.4
69°	2487.1	2539.8	2920.9	4017.5	7232.2	20381.2	41711.0	45904.8	40884.0	32393.0	26018.2
70°	2432.4	2481.0	2823.6	3703.3	5853.9	16799.5	40026.6	45331.2	41617.8	31470.8	24299.3
72.5°	2189.1	2241.8	2574.3	3326.3	5002.6	8375.4	31705.9	38328.0	37784.8	27287.1	18431.2
75°	2041.2	2089.8	2653.3	3257.3	4789.7	5300.5	20902.1	28247.9	27775.6	19088.0	9938.2
77.5°	873.6	869.6	1230.4	2756.7	4860.7	5132.3	11231.4	17646.8	16100.2	8158.6	2854.0
80°	583.8	573.6	583.8	810.8	4457.3	5160.7	5884.3	8957.2	6766.0	2079.7	1406.7
82.5°	502.7	494.6	512.8	494.6	1566.8	5890.4	5002.6	4763.4	3216.8	1181.7	697.3
85°	338.5	324.3	441.9	443.9	739.8	5233.6	5635.0	4023.5	2602.6	701.3	344.6
87.5°	162.2	158.1	257.4	314.2	433.8	2126.3	6322.1	4122.9	2624.9	358.8	164.2
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°	10692.3	10692.3	10692.3	10692.3	10692.3	10692.3	10692.3	10692.3	10692.3	10692.3	10692.3
2.5°	10588.9	10505.8	10424.7	10327.4	10226.1	10112.6	10055.8	9999.0	9984.9	9968.6	9911.9
5°	10297.0	10179.4	9976.8	9753.8	9518.7	9289.6	9115.3	9005.8	8922.7	8880.2	8805.2
7.5°	9920.0	9747.7	9393.0	9007.9	8612.6	8251.8	7939.6	7743.0	7556.5	7469.4	7370.1
10°	9561.2	9303.8	8752.5	8184.9	7617.4	7072.1	6559.3	6196.5	5874.2	5693.8	5566.1
12.5°	9253.1	8900.4	8136.3	7368.0	6589.7	5813.4	5045.1	4441.1	3936.4	3670.8	3535.0
15°	8953.1	8527.5	7550.5	6575.5	5576.2	4520.1	3510.7	2825.6	2408.0	2241.8	2185.1
17.5°	8681.5	8136.3	6962.6	5776.9	4530.3	3253.3	2359.4	1982.4	1822.2	1767.5	1749.3
20°	8387.6	7741.0	6352.5	4941.8	3439.8	2274.3	1842.5	1676.3	1611.4	1595.2	1587.1
22.5°	8103.8	7351.8	5768.8	4047.9	2470.9	1755.4	1583.1	1514.1	1504.0	1518.2	1518.2
25°	7862.6	7003.2	5138.4	3113.4	1814.1	1477.7	1416.9	1400.6	1439.1	1491.9	1502.0
27.5°	7682.2	6717.4	4467.4	2298.6	1445.2	1285.1	1283.1	1309.4	1404.7	1506.0	1526.3
30°	7558.6	6445.8	3749.9	1658.1	1212.1	1131.0	1163.5	1220.2	1360.1	1504.0	1542.5
32.5°	7495.7	6245.1	3001.9	1283.1	1037.8	993.2	1047.9	1116.9	1254.7	1388.5	1439.1
35°	7544.4	6097.1	2296.6	1070.2	916.2	881.7	938.5	1005.4	1086.5	1143.2	1181.7
37.5°	7726.8	6038.3	1733.1	958.8	833.1	800.7	845.2	883.8	916.2	932.4	950.6
40°	8120.0	6101.2	1388.5	902.0	786.5	745.9	764.2	778.4	798.6	814.8	823.0
42.5°	8699.8	6289.7	1244.6	879.7	762.1	703.4	699.3	705.4	731.7	762.1	768.2
45°	9510.5	6622.1	1234.4	893.9	750.0	668.9	650.7	658.8	699.3	745.9	754.0
47.5°	10546.3	7128.9	1315.5	936.5	760.1	650.7	620.3	630.4	681.1	743.9	754.0
50°	11801.0	7836.3	1451.3	999.3	804.7	654.7	610.1	616.2	668.9	737.8	748.0
52.5°	13282.7	8839.6	1599.3	1060.1	851.3	681.1	618.2	604.0	652.7	713.5	725.7
55°	14930.7	10126.7	1751.3	1114.8	875.7	713.5	634.4	587.8	622.3	673.0	683.1
57.5°	16953.6	11926.7	2014.8	1167.5	891.9	735.8	650.7	571.6	583.8	620.3	628.4
60°	19692.0	14472.6	2479.0	1254.7	928.4	743.9	648.6	557.4	545.3	565.5	569.6
62.5°	22973.7	17237.4	2866.1	1364.2	989.2	750.0	636.5	547.3	512.8	512.8	516.9
65°	24921.6	17977.2	2651.3	1455.4	1039.8	743.9	622.3	537.1	488.5	466.2	468.2
67.5°	23269.6	15810.4	2272.2	1473.6	1037.8	715.5	600.0	518.9	464.2	429.7	427.7
69°	21200.1	13641.5	2102.0	1425.0	989.2	679.0	571.6	498.6	445.9	409.4	407.4
70°	19531.9	12317.9	1990.5	1372.3	936.5	652.7	549.3	480.4	431.7	397.3	393.2
72.5°	14201.0	8071.4	1700.6	1179.7	772.3	547.3	474.3	421.6	385.1	364.9	360.8
75°	7096.4	3849.2	1380.4	956.7	591.9	437.8	389.2	352.7	334.5	330.4	328.4
77.5°	2331.0	1763.5	987.1	713.5	439.9	342.6	314.2	287.8	283.8	295.9	291.9
80°	1281.0	1025.6	626.3	472.3	300.0	251.3	247.3	233.1	239.2	259.5	255.4
82.5°	652.7	533.1	387.2	283.8	202.7	180.4	196.6	188.5	196.6	214.9	212.8
85°	322.3	291.9	245.3	172.3	133.8	115.5	139.9	145.9	150.0	164.2	164.2
87.5°	186.5	172.3	129.7	81.1	66.9	60.8	81.1	79.1	93.2	101.3	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)