

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: P299869

Luminaire Tested: **GLNA-AF-10-LED-E1-SL3-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299869
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-SL3-7027
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 2700K 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: 51016.5 lumens
Efficiency: N/A
Efficacy: 91.4 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B3 - U0 - G5

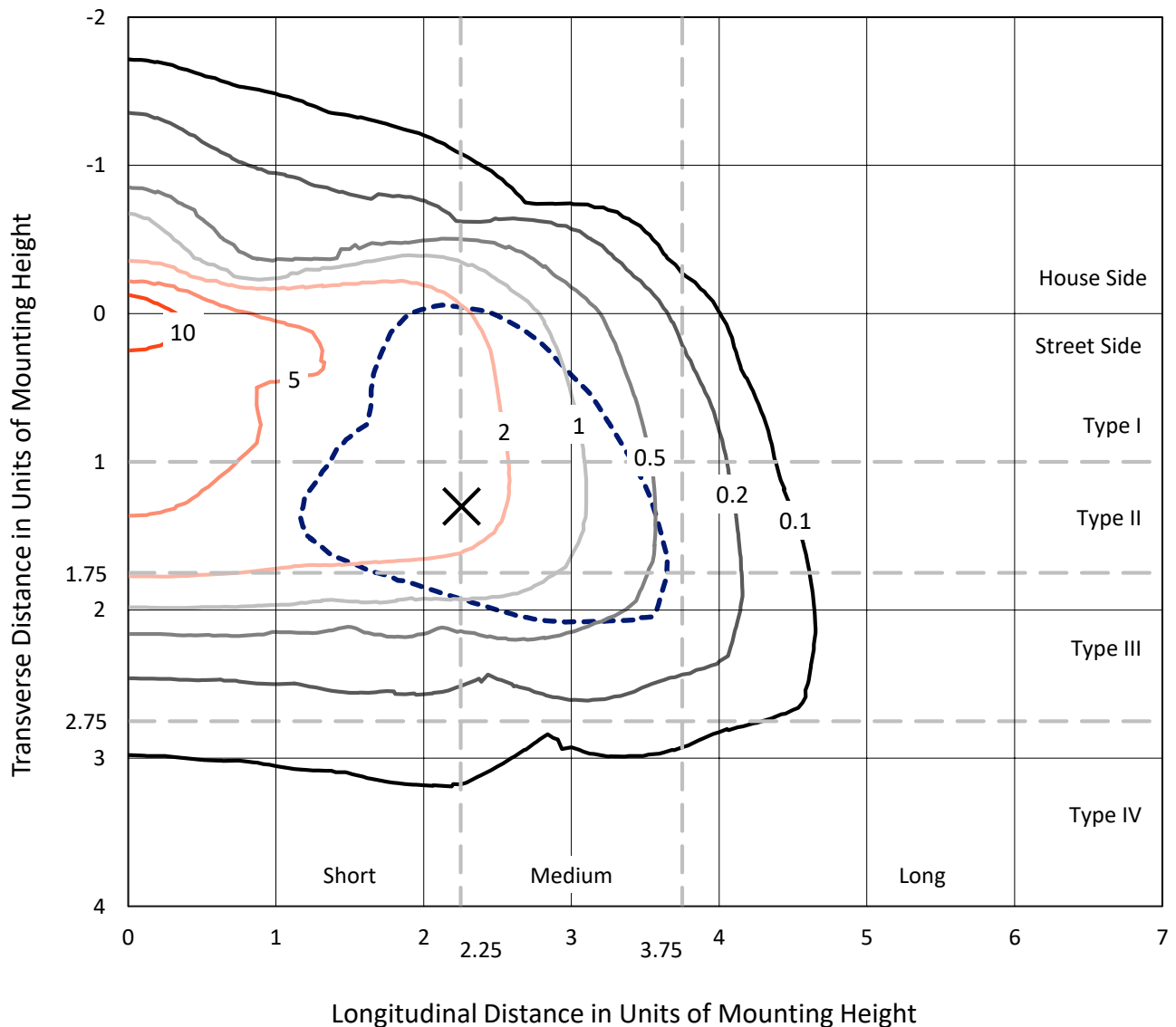
Input Watts (W): 558
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

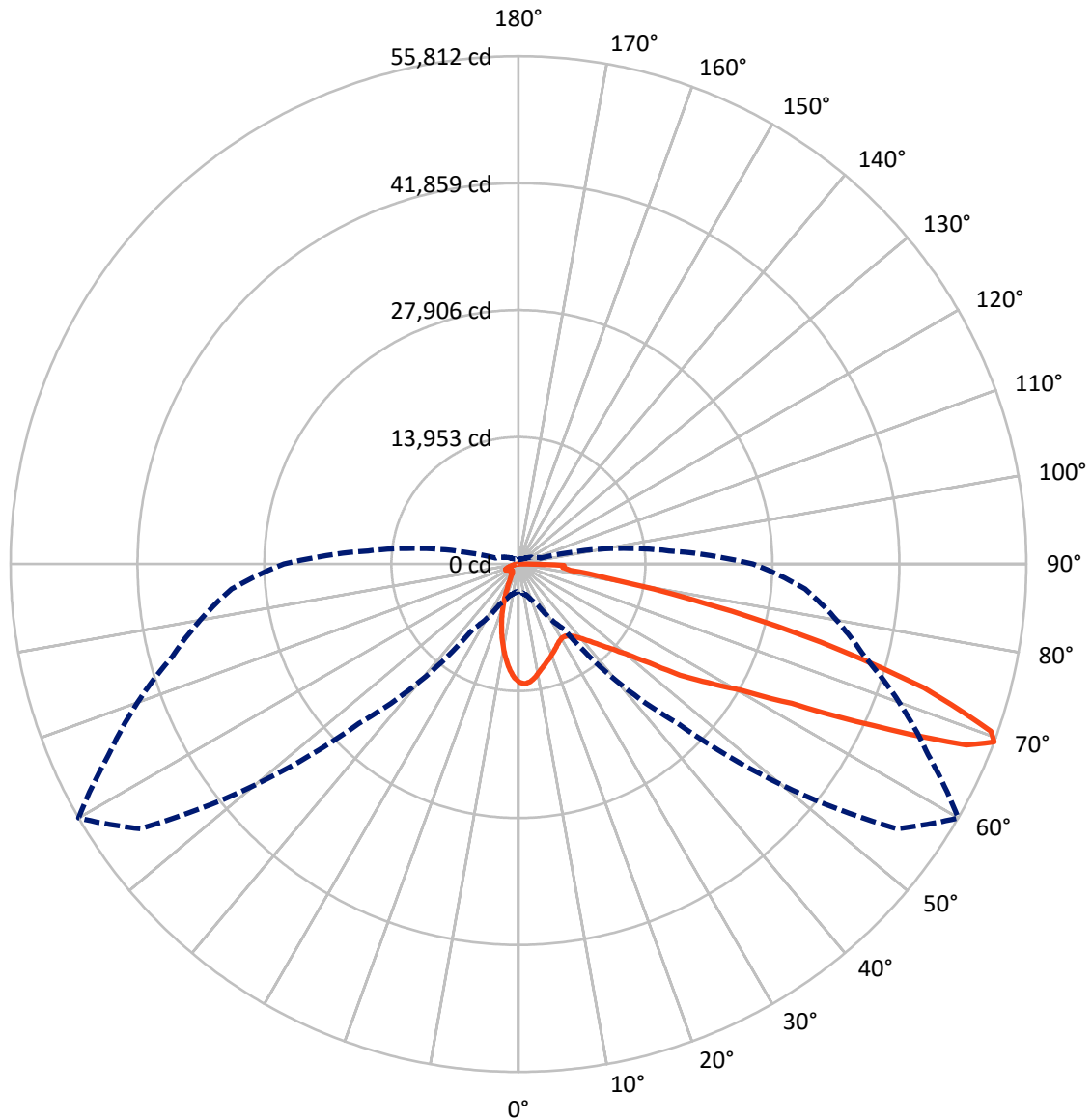
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 14.4 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
House Side	Lumens	7258.0	0.0	7258.0
	% Fixture	14.2	0.0	14.2
Street Side	Lumens	43758.5	0.0	43758.5
	% Fixture	85.8	0.0	85.8
Total	Lumens	51016.5	0.0	51016.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1099.2	2.2
10°-20°	2341.9	4.6
20°-30°	2984.0	5.8
30°-40°	4102.2	8.0
40°-50°	6656.2	13.0
50°-60°	10674.8	20.9
60°-70°	14207.4	27.8
70°-80°	7670.9	15.0
80°-90°	1279.9	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°	51016.5	100.0
0°-180°	51016.5	100.0

Coefficient of Utilization



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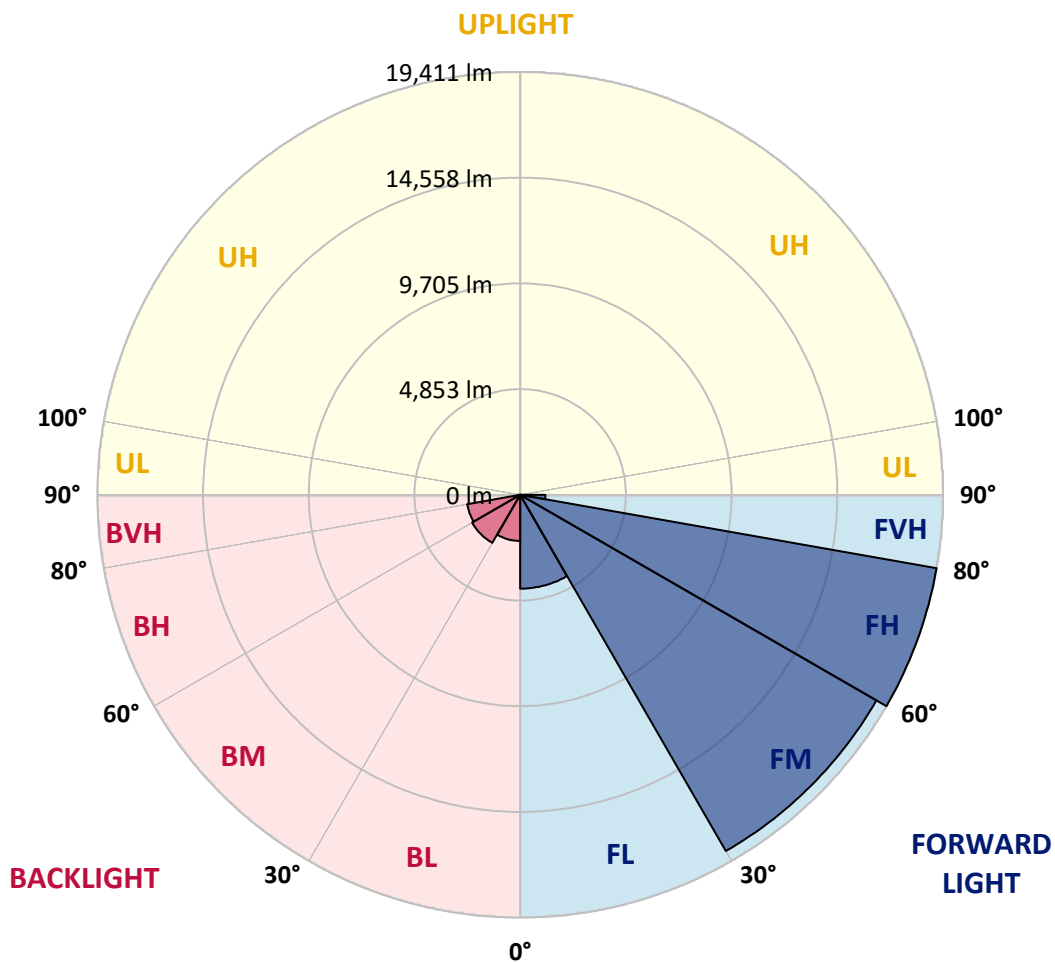
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4307.6	8.4			
FM	(30°-60°)	18883.3	37.0			
FH	(60°-80°)	19410.8	38.0			G5
FVH	(80°-90°)	1156.7	2.3			G5
BL	(0°-30°)	2117.4	4.2	B3/2500		
BM	(30°-60°)	2549.9	5.0	B3/5000		
BH	(60°-80°)	2467.5	4.8	B3/2500		G3/2500
BVH	(80°-90°)	123.3	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°	12999.8	12999.8	12999.8	12999.8	12999.8	12999.8	12999.8	12999.8	12999.8	12999.8	12999.8
2.5°	13265.9	13295.5	13283.2	13275.8	13298.0	13263.5	13192.0	13169.8	13135.3	13054.0	12916.0
5°	12768.1	12856.8	12851.9	12918.5	13029.4	13058.9	13026.9	13031.8	12967.7	12866.7	12637.5
7.5°	11908.0	11945.0	11964.7	12110.1	12312.2	12474.9	12612.9	12657.2	12627.7	12541.4	12245.7
10°	11020.9	11050.4	11097.3	11267.3	11523.6	11747.9	12009.1	12159.4	12223.5	12208.7	11878.5
12.5°	10259.4	10288.9	10350.5	10542.8	10848.3	11124.4	11503.9	11691.2	11844.0	11935.2	11580.3
15°	9576.7	9640.8	9699.9	9921.7	10264.3	10626.6	11055.4	11291.9	11528.5	11733.1	11316.6
17.5°	9044.4	9108.5	9143.0	9345.1	9709.8	10153.4	10656.1	10934.6	11230.3	11565.5	11055.4
20°	8736.3	8765.9	8751.1	8864.5	9192.3	9663.0	10259.4	10582.2	10939.5	11407.8	10794.1
22.5°	8650.1	8652.6	8598.3	8586.0	8798.0	9194.7	9835.5	10227.3	10666.0	11304.3	10569.9
25°	8859.6	8852.2	8704.3	8583.6	8605.7	8837.4	9426.4	9882.3	10436.8	11282.1	10397.4
27.5°	9325.3	9347.5	9128.2	8901.5	8677.2	8669.8	9115.9	9596.4	10249.5	11383.1	10323.4
30°	9978.4	10015.4	9781.3	9492.9	9071.5	8724.0	8995.1	9426.4	10133.7	11592.6	10311.1
32.5°	10693.1	10732.5	10555.1	10252.0	9699.9	9059.2	9078.9	9441.2	10128.7	11885.9	10394.9
35°	11454.6	11499.0	11407.8	11151.5	10537.8	9677.8	9399.3	9680.2	10288.9	12334.4	10619.2
37.5°	12304.8	12373.8	12398.5	12154.5	11499.0	10493.5	9924.2	10133.7	10651.2	12957.9	11030.7
40°	13529.6	13625.7	13618.3	13268.4	12600.5	11595.1	10735.0	10789.2	11215.5	13790.9	11688.7
42.5°	15875.8	15895.5	15281.8	14520.3	13813.0	12753.3	11691.2	11646.8	11994.3	14845.6	12657.2
45°	18860.2	18778.8	17413.5	15942.3	15079.7	14084.1	12935.7	12718.8	12982.5	16132.0	13869.7
47.5°	21336.9	21149.6	19424.5	17393.8	16420.4	15530.7	14397.1	14017.6	14163.0	17591.0	15437.1
50°	22197.0	22056.5	20627.1	18601.4	17689.6	17295.3	16196.1	15658.9	15698.3	19330.9	17273.1
52.5°	22012.1	21992.4	21038.7	19397.4	18877.4	19148.5	18744.3	18017.3	17632.9	21263.0	19254.5
55°	21575.9	21617.8	21272.8	20324.0	20235.3	20937.7	22073.8	21536.5	20341.3	23212.3	21302.4
57.5°	20060.3	20168.8	20927.8	21489.7	22421.2	23466.1	24755.0	24602.2	23256.7	25319.4	23737.2
60°	16161.6	16413.0	18448.6	21263.0	24671.2	27939.1	28515.7	28160.9	26263.3	27934.1	26953.3
62.5°	11324.0	11585.2	14005.3	18409.2	24301.6	32991.1	35238.6	33708.2	30580.9	31786.0	31115.7
65°	6062.5	6188.1	8036.5	12773.1	20516.2	34033.5	45064.3	42735.4	37417.2	36534.9	34676.8
67.5°	3344.2	3413.2	4120.5	6449.4	13140.3	29969.7	51323.9	53083.5	45961.3	39696.8	34028.6
69°	3023.8	3087.9	3551.2	4884.5	8793.0	24779.7	50712.7	55811.6	49707.2	39383.8	31633.2
70°	2957.3	3016.4	3432.9	4502.5	7117.2	20425.1	48664.8	55114.1	50599.3	38262.5	29543.4
72.5°	2661.6	2725.6	3129.8	4044.1	6082.2	10183.0	38548.4	46599.6	45939.1	33175.9	22408.9
75°	2481.7	2540.8	3225.9	3960.3	5823.4	6444.4	25413.0	34344.1	33769.9	23207.4	12083.0
77.5°	1062.2	1057.2	1495.9	3351.6	5909.7	6239.9	13655.3	21455.2	19574.8	9919.3	3469.9
80°	709.8	697.4	709.8	985.8	5419.2	6274.4	7154.2	10890.2	8226.2	2528.5	1710.3
82.5°	611.2	601.3	623.5	601.3	1905.0	7161.6	6082.2	5791.4	3911.0	1436.8	847.8
85°	411.6	394.3	537.2	539.7	899.5	6363.1	6851.1	4891.9	3164.3	852.7	419.0
87.5°	197.2	192.2	313.0	382.0	527.4	2585.2	7686.5	5012.6	3191.4	436.2	199.6
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°	12999.8	12999.8	12999.8	12999.8	12999.8	12999.8	12999.8	12999.8	12999.8	12999.8	12999.8
2.5°	12874.1	12773.1	12674.5	12556.2	12433.0	12295.0	12226.0	12157.0	12139.7	12120.0	12051.0
5°	12519.2	12376.3	12129.8	11858.8	11572.9	11294.4	11082.5	10949.4	10848.3	10796.6	10705.4
7.5°	12060.8	11851.4	11420.1	10951.9	10471.3	10032.6	9653.1	9414.1	9187.3	9081.4	8960.6
10°	11624.6	11311.7	10641.3	9951.3	9261.3	8598.3	7974.8	7533.7	7141.9	6922.5	6767.3
12.5°	11250.0	10821.2	9892.2	8958.1	8011.8	7067.9	6133.9	5399.5	4785.9	4463.1	4297.9
15°	10885.3	10367.8	9179.9	7994.6	6779.6	5495.6	4268.4	3435.4	2927.7	2725.6	2656.6
17.5°	10555.1	9892.2	8465.3	7023.6	5508.0	3955.4	2868.6	2410.2	2215.5	2149.0	2126.8
20°	10197.7	9411.6	7723.5	6008.2	4182.1	2765.1	2240.2	2038.1	1959.2	1939.5	1929.6
22.5°	9852.7	8938.4	7013.7	4921.4	3004.1	2134.2	1924.7	1840.9	1828.6	1845.8	1845.8
25°	9559.5	8514.5	6247.3	3785.3	2205.6	1796.6	1722.6	1702.9	1749.7	1813.8	1826.1
27.5°	9340.1	8167.1	5431.6	2794.6	1757.1	1562.4	1560.0	1592.0	1707.8	1831.1	1855.7
30°	9189.8	7836.8	4559.2	2015.9	1473.7	1375.1	1414.6	1483.6	1653.6	1828.6	1875.4
32.5°	9113.4	7592.9	3649.8	1560.0	1261.8	1207.6	1274.1	1357.9	1525.5	1688.1	1749.7
35°	9172.5	7413.0	2792.2	1301.2	1113.9	1072.0	1141.0	1222.3	1320.9	1389.9	1436.8
37.5°	9394.3	7341.5	2107.1	1165.7	1012.9	973.4	1027.7	1074.5	1113.9	1133.6	1155.8
40°	9872.4	7417.9	1688.1	1096.7	956.2	906.9	929.1	946.3	971.0	990.7	1000.6
42.5°	10577.3	7647.1	1513.1	1069.6	926.6	855.2	850.2	857.6	889.7	926.6	934.0
45°	11563.0	8051.2	1500.8	1086.8	911.8	813.3	791.1	800.9	850.2	906.9	916.8
47.5°	12822.3	8667.3	1599.4	1138.6	924.2	791.1	754.1	766.4	828.0	904.4	916.8
50°	14347.8	9527.4	1764.5	1215.0	978.4	796.0	741.8	749.2	813.3	897.0	909.4
52.5°	16149.3	10747.3	1944.4	1288.9	1035.1	828.0	751.6	734.4	793.5	867.5	882.3
55°	18152.9	12312.2	2129.3	1355.4	1064.6	867.5	771.4	714.7	756.6	818.2	830.5
57.5°	20612.4	14500.6	2449.6	1419.5	1084.3	894.6	791.1	695.0	709.8	754.1	764.0
60°	23941.8	17595.9	3014.0	1525.5	1128.7	904.4	788.6	677.7	662.9	687.6	692.5
62.5°	27931.7	20957.4	3484.7	1658.6	1202.6	911.8	773.8	665.4	623.5	623.5	628.4
65°	30300.0	21856.9	3223.5	1769.4	1264.2	904.4	756.6	653.1	593.9	566.8	569.3
67.5°	28291.5	19222.4	2762.6	1791.6	1261.8	869.9	729.5	630.9	564.4	522.5	520.0
69°	25775.3	16585.5	2555.6	1732.5	1202.6	825.6	695.0	606.2	542.2	497.8	495.3
70°	23747.1	14976.2	2420.1	1668.4	1138.6	793.5	667.9	584.1	524.9	483.0	478.1
72.5°	17265.7	9813.3	2067.6	1434.3	938.9	665.4	576.7	512.6	468.2	443.6	438.7
75°	8627.9	4679.9	1678.3	1163.2	719.6	532.3	473.2	428.8	406.6	401.7	399.2
77.5°	2834.1	2144.0	1200.2	867.5	534.8	416.5	382.0	349.9	345.0	359.8	354.9
80°	1557.5	1247.0	761.5	574.2	364.7	305.6	300.7	283.4	290.8	315.4	310.5
82.5°	793.5	648.1	470.7	345.0	246.4	219.3	239.0	229.2	239.0	261.2	258.8
85°	391.8	354.9	298.2	209.5	162.7	140.5	170.0	177.4	182.4	199.6	199.6
87.5°	226.7	209.5	157.7	98.6	81.3	73.9	98.6	96.1	113.4	123.2	120.8
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)