

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: P299131

Luminaire Tested: **GLNA-AF-07-LED-E1-SL2-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299131
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-07-LED-E1-SL2-7027
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Narrow OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 35711.8 lumens
Efficiency: N/A
Efficacy: 91.3 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G5

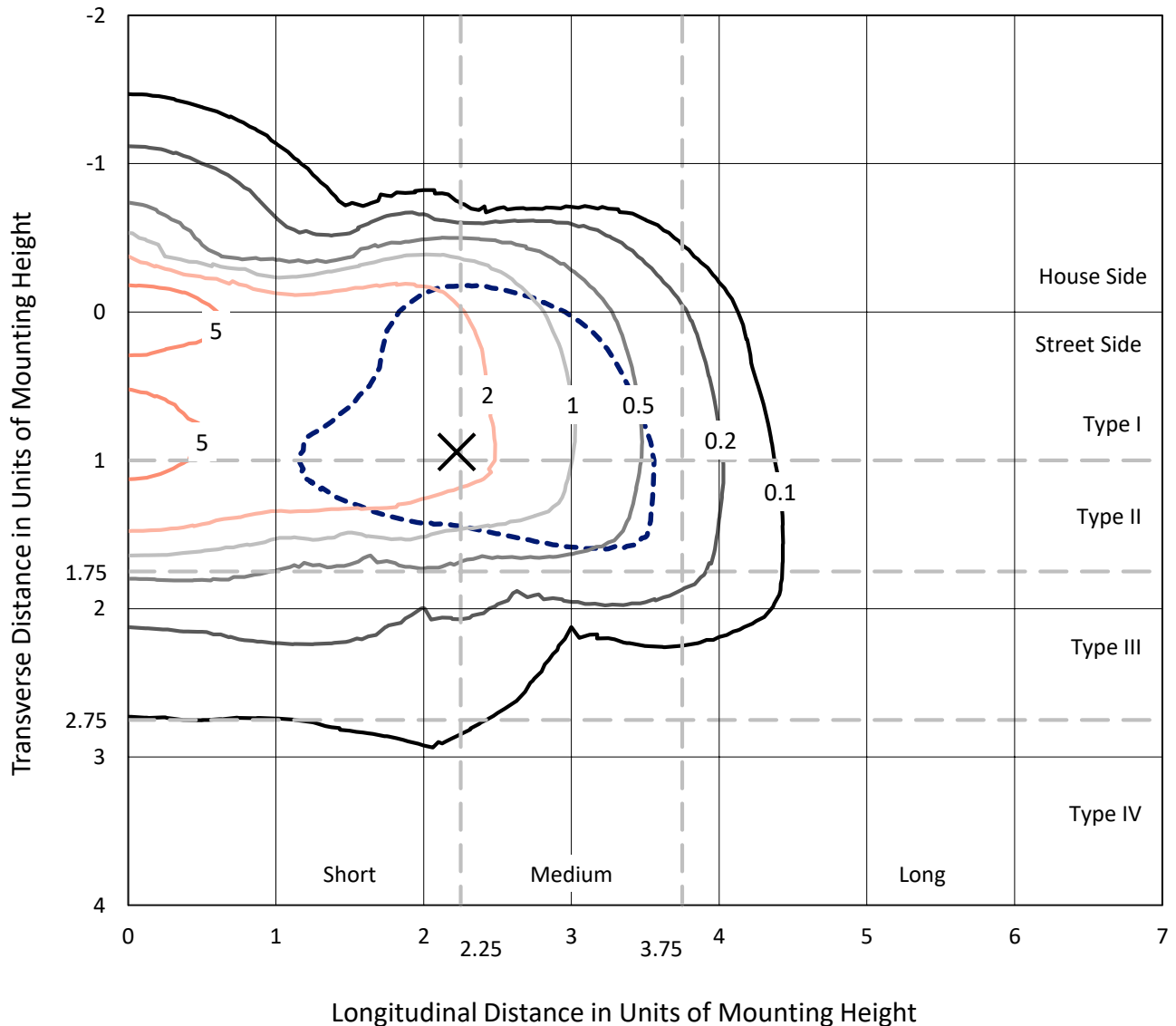
Input Watts (W): 391
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P299131
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Iso-Footcandle Lines of Horizontal Illumination

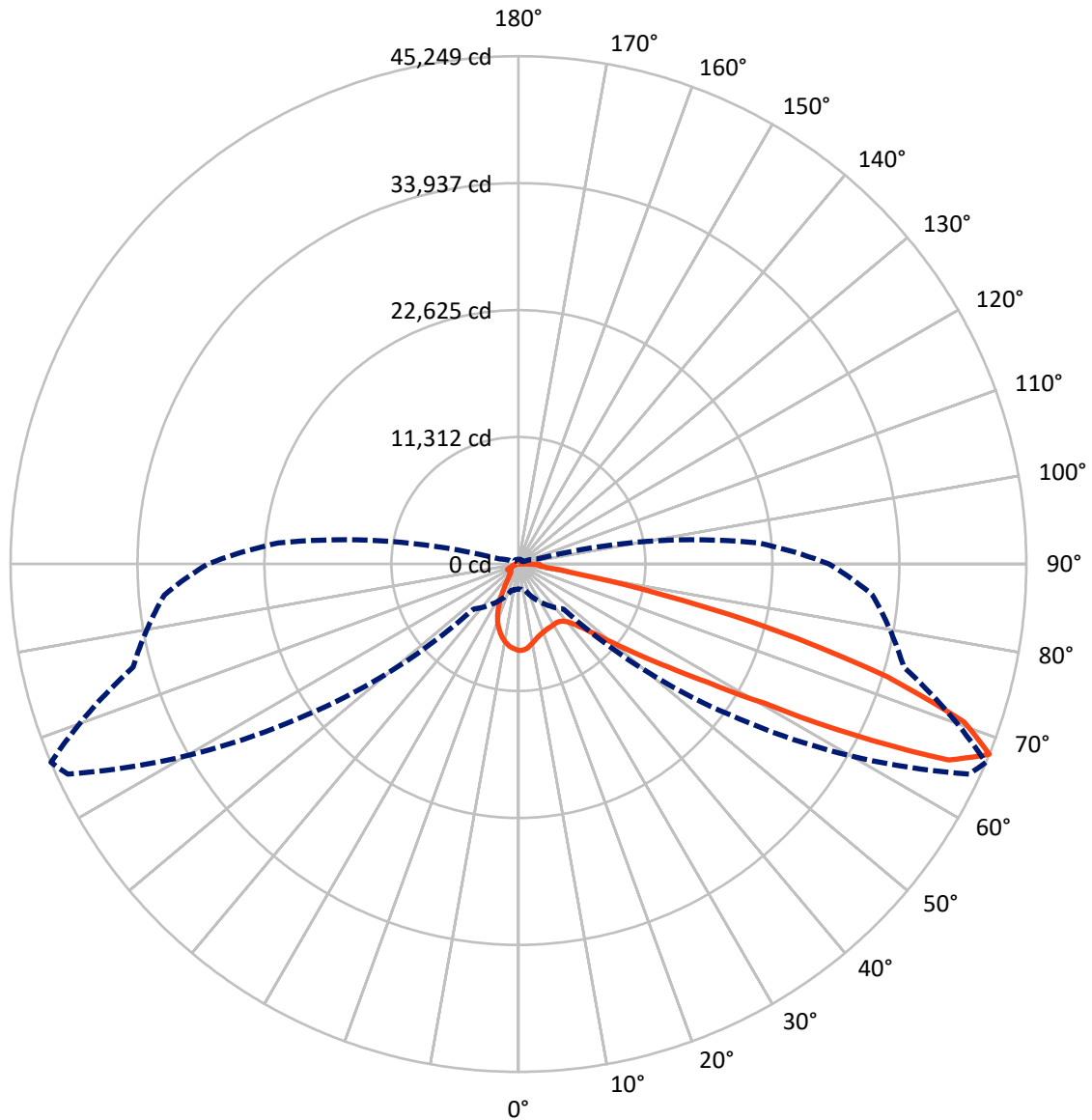
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 8.6 fc
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P299131
CATALOG NUMBER: GLNA-AF-07-LED-E1-SL2-7027

Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P299131

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5917.0	0.0	5917.0
	% Fixture	16.6	0.0	16.6
Street Side	Lumens	29794.8	0.0	29794.8
	% Fixture	83.4	0.0	83.4
Total	Lumens	35711.8	0.0	35711.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	657.2	1.8
10°-20°	1520.6	4.3
20°-30°	2061.2	5.8
30°-40°	2930.2	8.2
40°-50°	4902.4	13.7
50°-60°	7755.5	21.7
60°-70°	9879.8	27.7
70°-80°	5175.0	14.5
80°-90°	830.0	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°	35711.8	100.0
0°-180°	35711.8	100.0



REPORT NUMBER: P299131

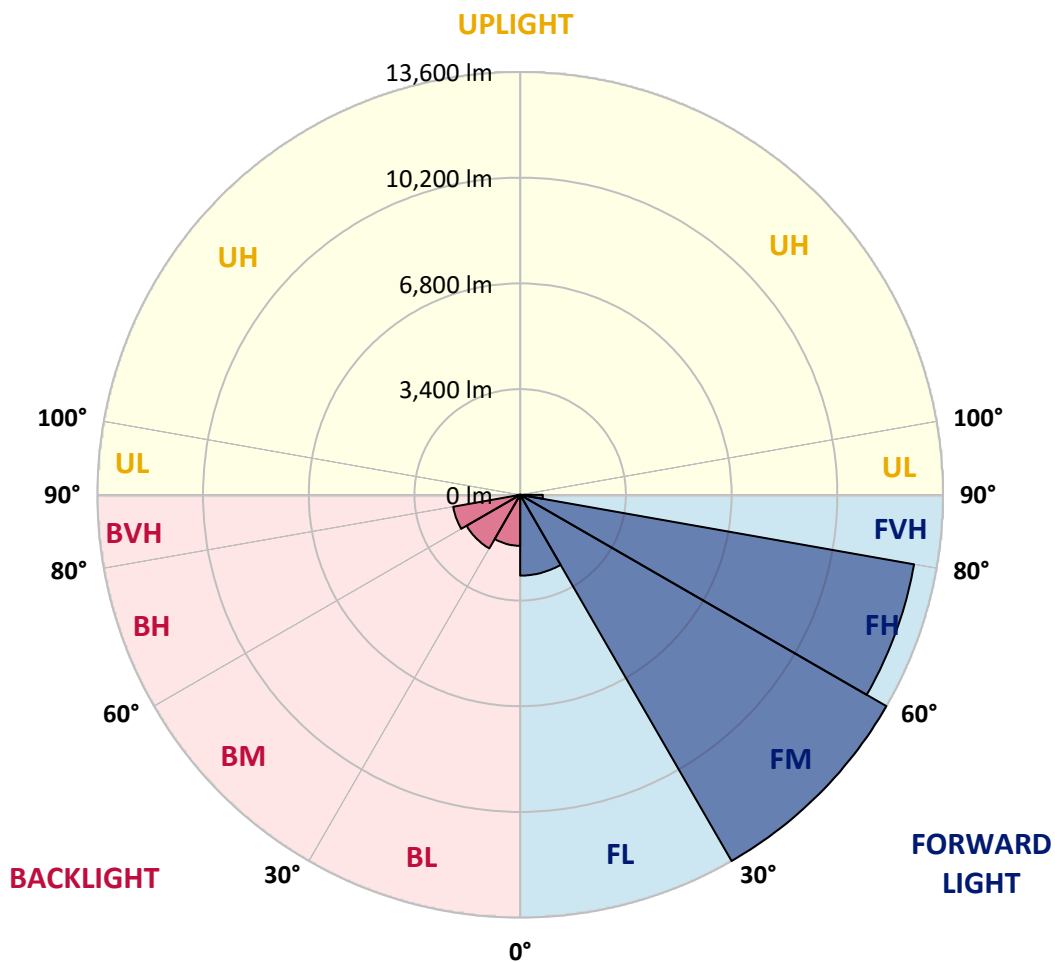
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2599.0	7.3			
FM (30°-60°)	13599.8	38.1			
FH (60°-80°)	12866.2	36.0			G5
FVH (80°-90°)	729.8	2.0			G4/750
BL (0°-30°)	1640.0	4.6	B3/2500		
BM (30°-60°)	1988.3	5.6	B2/2500		
BH (60°-80°)	2188.5	6.1	B3/2500		G3/2500
BVH (80°-90°)	100.2	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





REPORT NUMBER: P299131

CATALOG NUMBER: GLNA-AF-07-LED-E1-SL2-7027

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	7703.0	7703.0	7703.0	7703.0	7703.0	7703.0	7703.0	7703.0	7703.0	7703.0	7703.0
2.5°	7386.0	7398.3	7437.0	7461.7	7572.6	7620.2	7653.6	7687.1	7692.4	7708.2	7692.4
5°	6611.1	6637.5	6709.7	6790.7	7005.6	7174.6	7352.5	7537.4	7570.9	7690.6	7724.1
7.5°	6010.6	6003.5	6063.4	6160.3	6380.4	6614.6	6926.3	7294.4	7366.6	7636.0	7766.4
10°	5572.1	5566.8	5630.2	5730.5	5940.1	6162.0	6514.2	7017.9	7120.0	7549.7	7806.9
12.5°	5248.0	5249.8	5313.2	5424.1	5637.2	5860.9	6218.4	6750.2	6880.5	7449.4	7849.1
15°	5033.2	5047.3	5098.3	5216.3	5424.1	5647.8	5998.2	6549.5	6695.6	7370.1	7896.7
17.5°	4961.0	4983.9	5001.5	5087.8	5265.6	5489.3	5832.7	6401.5	6556.5	7315.5	7938.9
20°	5027.9	5054.3	5020.8	5050.8	5163.5	5360.7	5702.4	6285.3	6443.8	7253.9	7944.2
22.5°	5314.9	5339.6	5241.0	5154.7	5147.6	5267.4	5594.9	6193.7	6357.5	7208.1	7946.0
25°	5820.4	5836.2	5670.7	5469.9	5274.4	5233.9	5519.2	6130.3	6304.7	7167.6	7912.5
27.5°	6440.3	6452.6	6262.4	5966.5	5573.8	5313.2	5492.8	6093.3	6274.7	7132.4	7856.2
30°	7194.0	7252.1	6996.8	6623.4	6051.1	5547.4	5545.6	6074.0	6241.3	7072.5	7745.2
32.5°	7965.4	7990.0	7813.9	7435.3	6693.9	5959.5	5693.6	6088.0	6232.5	7000.3	7604.3
35°	8747.3	8779.0	8664.5	8359.8	7572.6	6563.5	5982.4	6170.8	6287.1	6975.6	7505.7
37.5°	9759.9	9802.2	9643.7	9291.4	8641.6	7382.4	6463.2	6378.6	6454.4	7046.1	7475.8
40°	11360.7	11341.3	10878.2	10353.4	9811.0	8430.3	7150.0	6730.8	6774.9	7273.3	7567.4
42.5°	13223.9	13176.4	12378.6	11554.4	11096.6	9698.3	8058.7	7341.9	7333.1	7720.6	7889.6
45°	14710.3	14671.5	13953.0	12936.9	12570.6	11142.3	9233.3	8252.4	8187.3	8430.3	8484.9
47.5°	15515.1	15516.9	15103.0	14273.5	14264.7	12977.4	10742.6	9569.7	9457.0	9571.5	9513.3
50°	15233.3	15270.3	15226.3	14962.1	15811.0	15383.0	12713.2	11406.5	11179.3	11292.0	11068.4
52.5°	13870.3	13917.8	14178.4	14583.5	16460.8	18290.6	15608.4	13688.9	13424.7	13384.2	13135.9
55°	11454.1	11512.2	12044.0	13144.7	15920.1	20243.6	20176.7	16598.2	16177.3	15795.1	15689.4
57.5°	7894.9	7991.8	8847.7	10481.9	14171.4	20833.6	25616.6	20745.5	19889.6	18554.7	18579.4
60°	4450.2	4563.0	5572.1	7056.6	10642.2	20192.5	29755.2	27027.3	25220.4	21786.3	21969.5
62.5°	2830.1	2951.6	3717.6	4902.8	6385.7	16740.8	31451.1	35760.5	33465.8	25769.9	25949.5
65°	2291.2	2344.0	2705.0	4047.0	4636.9	10085.7	30163.8	42954.5	42098.6	30825.9	29987.6
67.5°	2236.6	2254.2	2440.9	3397.1	4446.7	5668.9	24059.9	44299.9	45249.1	35547.4	31669.5
70°	2210.2	2271.8	2750.8	3242.1	4258.3	4781.3	14458.5	40612.2	42110.9	36781.9	29431.1
72.5°	1072.5	1069.0	1384.2	2932.2	4797.2	4959.2	7428.2	32860.0	34363.9	31866.7	24184.9
75°	864.7	790.7	755.5	1074.3	4612.3	5121.2	4733.8	22610.5	23698.8	21365.4	14867.0
77.5°	820.7	732.6	671.0	672.7	1949.5	5431.2	4010.0	12514.2	12831.2	9650.7	4073.4
80°	679.8	598.8	554.7	625.2	943.9	5172.3	4335.8	5663.6	5196.9	2370.4	1356.0
82.5°	472.0	429.7	417.4	524.8	755.5	3685.9	5042.0	3043.1	2551.8	1187.0	836.5
85°	301.1	257.1	285.3	382.2	588.2	1701.2	5193.4	2372.2	1886.1	753.7	472.0
87.5°	139.1	112.7	140.9	211.3	383.9	586.4	4941.6	2664.5	1942.5	398.0	297.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P299131

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	7703.0	7703.0	7703.0	7703.0	7703.0	7703.0	7703.0	7703.0	7703.0	7703.0	7703.0
2.5°	7706.5	7673.0	7646.6	7597.3	7542.7	7489.9	7442.3	7382.4	7364.8	7349.0	7373.6
5°	7731.1	7697.7	7600.8	7449.4	7282.1	7125.3	6968.6	6834.7	6752.0	6706.2	6732.6
7.5°	7768.1	7720.6	7519.8	7241.6	6940.4	6665.7	6382.1	6155.0	5987.7	5908.4	5931.3
10°	7801.6	7710.0	7382.4	6965.1	6524.8	6116.2	5668.9	5299.1	5024.4	4879.9	4915.2
12.5°	7815.7	7669.5	7190.5	6619.9	6015.8	5417.1	4758.4	4205.5	3811.0	3666.6	3636.6
15°	7829.8	7623.7	6979.2	6227.2	5401.2	4554.1	3631.3	2969.2	2641.6	2569.4	2553.6
17.5°	7833.3	7544.5	6739.6	5801.0	4680.9	3527.4	2483.1	2062.2	2064.0	2180.2	2194.3
20°	7796.3	7426.5	6449.1	5270.9	3818.0	2439.1	1704.7	1632.5	1898.4	2189.0	2224.2
22.5°	7711.8	7269.7	6119.7	4652.8	2830.1	1606.1	1319.0	1398.3	1741.7	2097.4	2137.9
25°	7604.3	7079.5	5730.5	3936.0	1873.8	1148.2	1106.0	1202.8	1435.3	1673.0	1695.9
27.5°	7458.2	6854.1	5293.8	3115.3	1216.9	945.7	973.9	1039.0	1134.1	1239.8	1250.4
30°	7269.7	6584.7	4827.1	2271.8	919.3	850.6	891.1	926.3	966.8	1026.7	1032.0
32.5°	7053.1	6325.8	4348.1	1569.1	815.4	801.3	833.0	850.6	882.3	919.3	922.8
35°	6871.7	6079.2	3851.5	1109.5	771.4	764.3	785.4	792.5	822.4	862.9	866.5
37.5°	6767.8	5878.5	3339.0	894.6	741.4	730.8	743.2	743.2	785.4	845.3	854.1
40°	6774.9	5767.5	2826.5	808.3	716.8	702.7	704.4	704.4	759.0	824.2	829.5
42.5°	6966.8	5795.7	2372.2	774.9	697.4	681.5	672.7	678.0	723.8	766.1	769.6
45°	7417.7	5994.7	1946.0	753.7	678.0	672.7	653.4	651.6	669.2	688.6	688.6
47.5°	8157.3	6387.4	1657.2	739.7	662.2	660.4	637.5	614.6	612.9	619.9	619.9
50°	9360.1	7063.7	1463.5	723.8	651.6	637.5	611.1	575.9	563.5	568.8	568.8
52.5°	11163.5	8270.0	1389.5	702.7	628.7	605.8	575.9	540.7	530.1	531.8	531.8
55°	13528.6	10122.7	1378.9	678.0	604.0	567.1	542.4	516.0	503.7	507.2	507.2
57.5°	16418.5	12685.0	1567.4	639.3	570.6	528.3	514.2	496.6	487.8	493.1	491.3
60°	19931.9	16038.1	2324.6	598.8	537.1	493.1	493.1	479.0	472.0	477.3	475.5
62.5°	23978.8	19889.6	3268.6	568.8	501.9	464.9	472.0	464.9	457.9	461.4	459.6
65°	27567.9	22399.2	3060.8	545.9	466.7	438.5	450.8	447.3	442.0	445.6	443.8
67.5°	27671.8	21469.3	1718.8	521.3	433.2	412.1	429.7	427.9	424.4	427.9	426.2
70°	24695.6	18128.5	968.6	475.5	398.0	380.4	405.0	403.3	399.8	406.8	405.0
72.5°	19785.7	13155.3	708.0	419.1	362.8	346.9	375.1	373.3	373.3	383.9	378.6
75°	11385.4	6769.6	565.3	359.3	325.8	313.5	338.1	339.9	343.4	357.5	346.9
77.5°	3245.7	2109.8	461.4	304.7	280.0	274.7	299.4	302.9	304.7	320.5	306.4
80°	1206.3	972.1	380.4	255.4	228.9	230.7	253.6	258.9	260.6	276.5	258.9
82.5°	769.6	641.0	308.2	197.2	179.6	177.9	206.0	213.1	213.1	214.9	204.3
85°	449.1	383.9	232.5	142.6	126.8	121.5	153.2	165.5	160.3	156.7	149.7
87.5°	301.1	264.2	142.6	79.2	68.7	65.2	89.8	98.6	95.1	89.8	84.5
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)