

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: P299149

Luminaire Tested: **GLNA-AF-10-LED-E1-SL2-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299149
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-10-LED-E1-SL2-7027
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(10) 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: 49973.4 lumens
Efficiency: N/A
Efficacy: 89.6 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B4 - U0 - G5

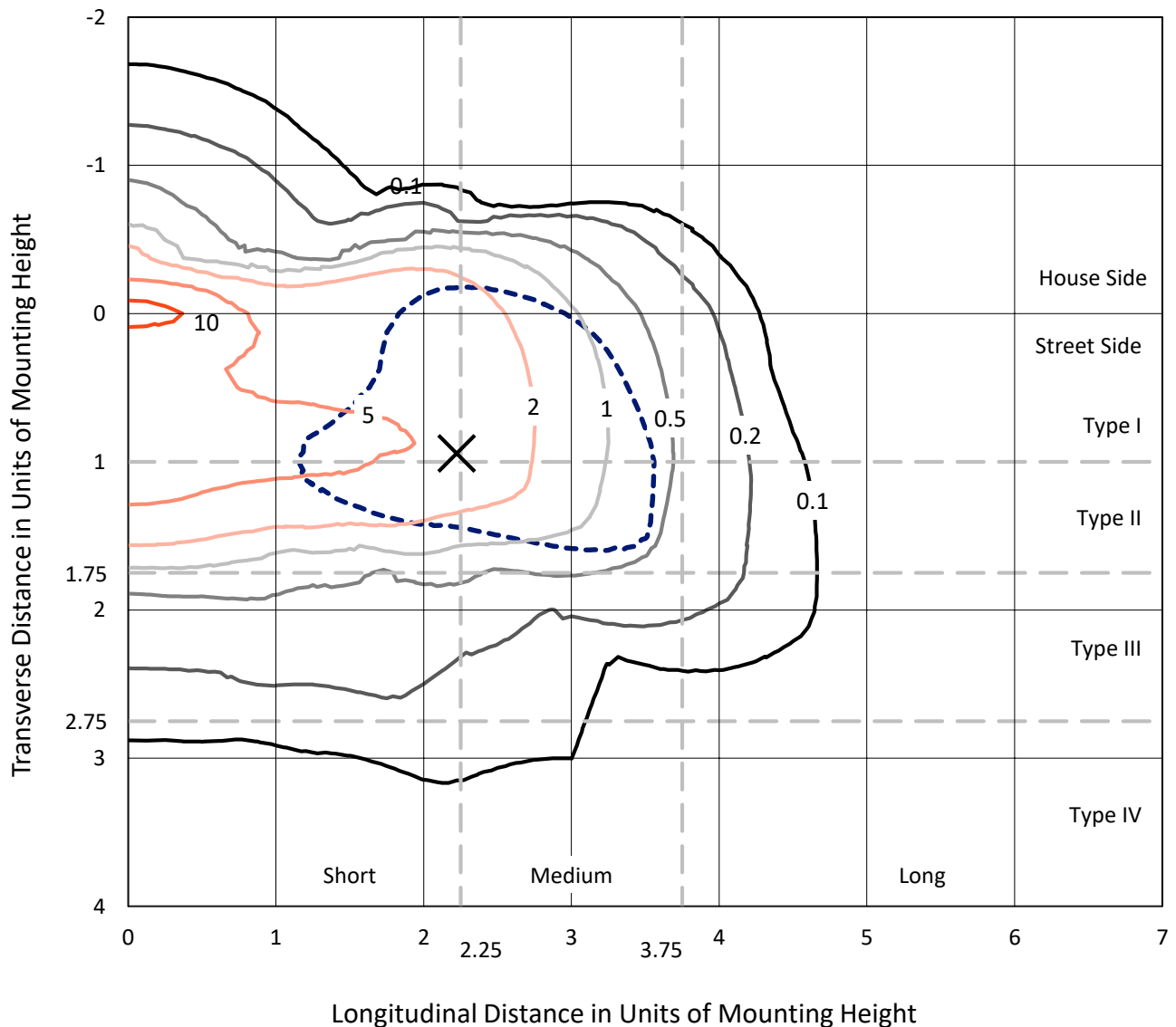
Input Watts (W): 558
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

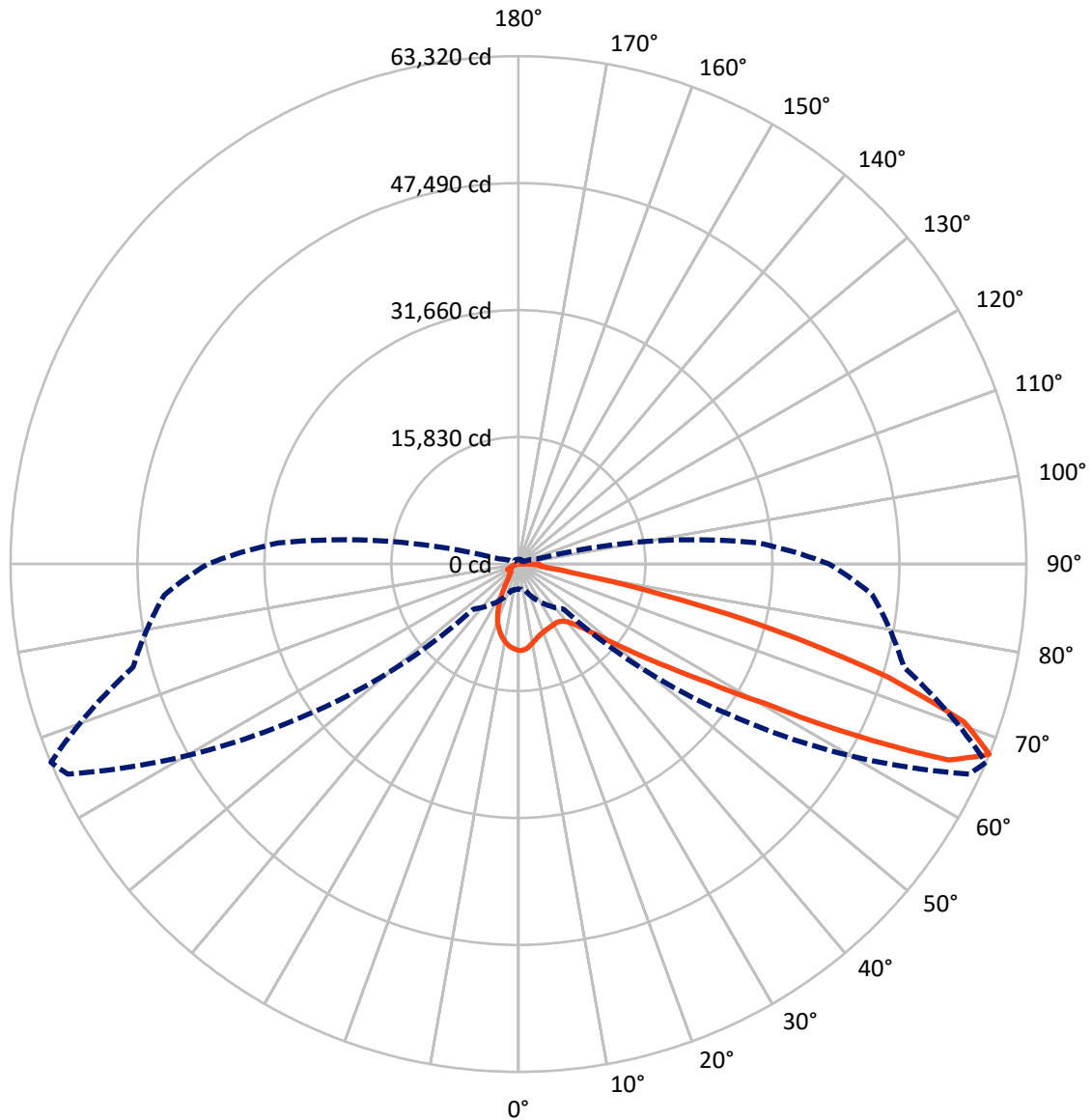
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 12 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	8280.0	0.0	8280.0
	% Fixture	16.6	0.0	16.6
Street Side	Lumens	41693.4	0.0	41693.4
	% Fixture	83.4	0.0	83.4
Total	Lumens	49973.4	0.0	49973.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	919.6	1.8
10°-20°	2127.9	4.3
20°-30°	2884.4	5.8
30°-40°	4100.4	8.2
40°-50°	6860.1	13.7
50°-60°	10852.7	21.7
60°-70°	13825.2	27.7
70°-80°	7241.6	14.5
80°-90°	1161.4	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°	49973.4	100.0
0°-180°	49973.4	100.0



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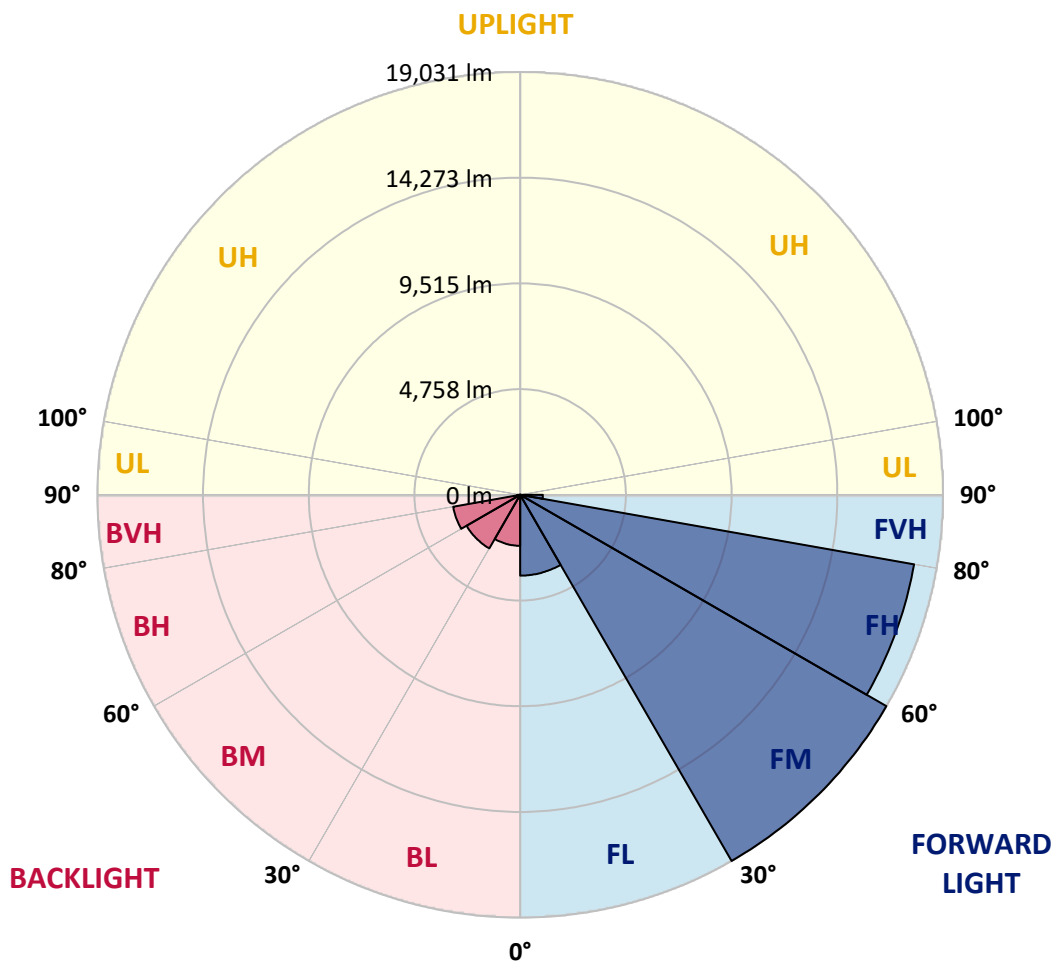
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3636.8	7.3			
FM	(30°-60°)	19030.9	38.1			
FH	(60°-80°)	18004.4	36.0			G5
FVH	(80°-90°)	1021.2	2.0			G5
BL	(0°-30°)	2295.0	4.6	B3/2500		
BM	(30°-60°)	2782.3	5.6	B3/5000		
BH	(60°-80°)	3062.5	6.1	B4/5000		G4/5000
BVH	(80°-90°)	140.2	0.3			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	10779.1	10779.1	10779.1	10779.1	10779.1	10779.1	10779.1	10779.1	10779.1	10779.1	10779.1
2.5°	10335.6	10352.8	10407.0	10441.5	10596.8	10663.3	10710.1	10757.0	10764.4	10786.5	10764.4
5°	9251.2	9288.2	9389.2	9502.6	9803.3	10039.8	10288.7	10547.5	10594.3	10761.9	10808.7
7.5°	8410.9	8401.0	8484.8	8620.4	8928.4	9256.2	9692.4	10207.4	10308.4	10685.5	10867.9
10°	7797.3	7789.9	7878.6	8019.1	8312.3	8622.8	9115.7	9820.5	9963.4	10564.7	10924.5
12.5°	7343.8	7346.3	7435.0	7590.3	7888.4	8201.4	8701.7	9445.9	9628.3	10424.3	10983.7
15°	7043.2	7062.9	7134.3	7299.5	7590.3	7903.2	8393.6	9165.0	9369.5	10313.4	11050.2
17.5°	6942.1	6974.2	6998.8	7119.6	7368.5	7681.4	8162.0	8958.0	9174.8	10237.0	11109.4
20°	7035.8	7072.7	7025.9	7067.8	7225.5	7501.5	7979.6	8795.3	9017.1	10150.7	11116.8
22.5°	7437.5	7472.0	7334.0	7213.2	7203.3	7370.9	7829.3	8667.2	8896.4	10086.7	11119.2
25°	8144.7	8166.9	7935.3	7654.3	7380.8	7324.1	7723.3	8578.5	8822.4	10030.0	11072.4
27.5°	9012.2	9029.4	8763.3	8349.3	7799.7	7435.0	7686.4	8526.7	8780.5	9980.7	10993.5
30°	10066.9	10148.3	9790.9	9268.5	8467.6	7762.8	7760.3	8499.6	8733.7	9896.9	10838.3
32.5°	11146.3	11180.8	10934.4	10404.6	9367.1	8339.4	7967.3	8519.3	8721.4	9795.9	10641.1
35°	12240.5	12284.9	12124.7	11698.4	10596.8	9184.7	8371.5	8635.1	8797.8	9761.4	10503.1
37.5°	13657.5	13716.7	13494.9	13002.0	12092.7	10330.6	9044.2	8925.9	9031.9	9859.9	10461.2
40°	15897.6	15870.5	15222.4	14488.0	13729.0	11796.9	10005.3	9418.8	9480.4	10177.8	10589.4
42.5°	18504.9	18438.4	17322.0	16168.7	15528.0	13571.3	11276.9	10273.9	10261.6	10803.8	11040.4
45°	20584.9	20530.6	19525.2	18103.2	17590.7	15592.1	12920.7	11548.0	11456.8	11796.9	11873.3
47.5°	21711.1	21713.5	21134.4	19973.7	19961.4	18159.9	15032.6	13391.4	13233.7	13393.8	13312.5
50°	21316.8	21368.5	21306.9	20937.3	22125.1	21526.3	17790.3	15961.7	15643.8	15801.5	15488.5
52.5°	19409.4	19475.9	19840.6	20407.4	23034.4	25594.9	21841.7	19155.5	18785.9	18729.2	18381.7
55°	16028.2	16109.6	16853.8	18394.0	22277.9	28327.9	28234.3	23226.7	22637.7	22102.9	21955.1
57.5°	11047.8	11183.3	12381.0	14667.9	19830.8	29153.5	35846.7	29030.2	27832.6	25964.6	25999.1
60°	6227.5	6385.2	7797.3	9874.7	14892.2	28256.4	41638.0	37820.6	35292.2	30486.7	30743.0
62.5°	3960.2	4130.3	5202.3	6860.8	8935.8	23426.3	44011.1	50041.4	46830.4	36061.1	36312.5
65°	3206.1	3280.1	3785.3	5663.1	6488.7	14113.4	42209.7	60108.4	58910.7	43136.3	41963.3
67.5°	3129.7	3154.4	3415.6	4753.8	6222.5	7932.8	33668.2	61991.2	63319.5	49743.3	44316.7
70°	3092.8	3179.0	3849.3	4536.9	5958.8	6690.8	20232.5	56830.8	58928.0	51470.8	41184.5
72.5°	1500.8	1495.9	1937.0	4103.2	6712.9	6939.7	10394.7	45982.6	48087.2	44592.7	33843.2
75°	1210.0	1106.5	1057.2	1503.3	6454.2	7166.4	6624.2	31640.0	33163.0	29897.7	20804.2
77.5°	1148.4	1025.2	938.9	941.4	2728.1	7600.1	5611.4	17511.8	17955.4	13504.7	5700.1
80°	951.2	837.9	776.3	874.9	1320.9	7237.8	6067.3	7925.4	7272.3	3317.0	1897.6
82.5°	660.5	601.3	584.1	734.4	1057.2	5157.9	7055.5	4258.4	3570.9	1661.0	1170.6
85°	421.4	359.8	399.2	534.8	823.1	2380.6	7267.4	3319.5	2639.3	1054.7	660.5
87.5°	194.7	157.7	197.1	295.7	537.2	820.6	6915.0	3728.6	2718.2	556.9	416.5
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°	10779.1	10779.1	10779.1	10779.1	10779.1	10779.1	10779.1	10779.1	10779.1	10779.1	10779.1
2.5°	10784.1	10737.2	10700.3	10631.3	10554.9	10481.0	10414.4	10330.6	10306.0	10283.8	10318.3
5°	10818.6	10771.8	10636.2	10424.3	10190.2	9970.8	9751.5	9564.2	9448.4	9384.3	9421.3
7.5°	10870.3	10803.8	10522.8	10133.5	9712.1	9327.6	8930.9	8613.0	8378.8	8268.0	8300.0
10°	10917.1	10789.0	10330.6	9746.6	9130.5	8558.7	7932.8	7415.3	7030.8	6828.8	6878.0
12.5°	10936.9	10732.3	10062.0	9263.6	8418.3	7580.4	6658.7	5884.9	5332.9	5130.8	5088.9
15°	10956.6	10668.2	9766.3	8714.0	7558.2	6372.9	5081.5	4154.9	3696.6	3595.5	3573.3
17.5°	10961.5	10557.4	9431.1	8117.6	6550.3	4936.1	3474.8	2885.8	2888.2	3050.9	3070.6
20°	10909.8	10392.2	9024.5	7375.9	5342.7	3413.1	2385.5	2284.5	2656.6	3063.2	3112.5
22.5°	10791.5	10172.9	8563.7	6510.9	3960.2	2247.5	1845.8	1956.7	2437.3	2935.1	2991.7
25°	10641.1	9906.8	8019.1	5507.9	2622.1	1606.8	1547.6	1683.2	2008.5	2341.1	2373.2
27.5°	10436.6	9591.3	7407.9	4359.5	1702.9	1323.4	1362.8	1454.0	1587.1	1734.9	1749.7
30°	10172.9	9214.3	6754.8	3179.0	1286.4	1190.3	1247.0	1296.3	1352.9	1436.7	1444.1
32.5°	9869.8	8852.0	6084.5	2195.8	1141.0	1121.3	1165.6	1190.3	1234.6	1286.4	1291.3
35°	9616.0	8507.0	5389.6	1552.6	1079.4	1069.5	1099.1	1109.0	1150.9	1207.5	1212.5
37.5°	9470.6	8226.1	4672.4	1251.9	1037.5	1022.7	1040.0	1040.0	1099.1	1182.9	1195.2
40°	9480.4	8070.8	3955.3	1131.1	1003.0	983.3	985.7	985.7	1062.1	1153.3	1160.7
42.5°	9749.0	8110.2	3319.5	1084.3	975.9	953.7	941.4	948.8	1012.9	1072.0	1076.9
45°	10379.9	8388.7	2723.1	1054.7	948.8	941.4	914.3	911.8	936.5	963.6	963.6
47.5°	11415.0	8938.3	2319.0	1035.0	926.6	924.1	892.1	860.1	857.6	867.5	867.5
50°	13098.1	9884.6	2047.9	1012.9	911.8	892.1	855.1	805.8	788.6	796.0	796.0
52.5°	15621.6	11572.7	1944.4	983.3	879.8	847.7	805.8	756.6	741.8	744.2	744.2
55°	18931.3	14165.2	1929.6	948.8	845.3	793.5	759.0	722.1	704.8	709.7	709.7
57.5°	22975.3	17750.8	2193.3	894.6	798.5	739.3	719.6	695.0	682.6	690.0	687.6
60°	27891.7	22443.0	3253.0	837.9	751.6	690.0	690.0	670.3	660.5	667.8	665.4
62.5°	33554.8	27832.6	4573.9	796.0	702.3	650.6	660.5	650.6	640.7	645.7	643.2
65°	38577.2	31344.3	4283.1	764.0	653.1	613.6	630.9	625.9	618.6	623.5	621.0
67.5°	38722.6	30043.1	2405.2	729.5	606.2	576.7	601.3	598.8	593.9	598.8	596.4
70°	34557.8	25368.2	1355.4	665.4	556.9	532.3	566.8	564.3	559.4	569.3	566.8
72.5°	27687.2	18408.8	990.7	586.5	507.7	485.5	524.9	522.4	522.4	537.2	529.8
75°	15932.1	9473.0	791.1	502.7	455.9	438.7	473.2	475.6	480.6	500.3	485.5
77.5°	4541.8	2952.3	645.7	426.3	391.8	384.4	418.9	423.9	426.3	448.5	428.8
80°	1688.1	1360.3	532.3	357.3	320.4	322.8	354.9	362.3	364.7	386.9	362.3
82.5°	1076.9	897.0	431.3	276.0	251.4	248.9	288.3	298.2	298.2	300.7	285.9
85°	628.4	537.2	325.3	199.6	177.4	170.0	214.4	231.7	224.3	219.3	209.5
87.5°	421.4	369.7	199.6	110.9	96.1	91.2	125.7	138.0	133.1	125.7	118.3
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)