

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: P299191

Luminaire Tested: **GLNA-AF-07-LED-E1-SL2-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299191
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-SL2-7027-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Narrow OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28850.9 lumens
Efficiency: N/A
Efficacy: 97.8 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G4

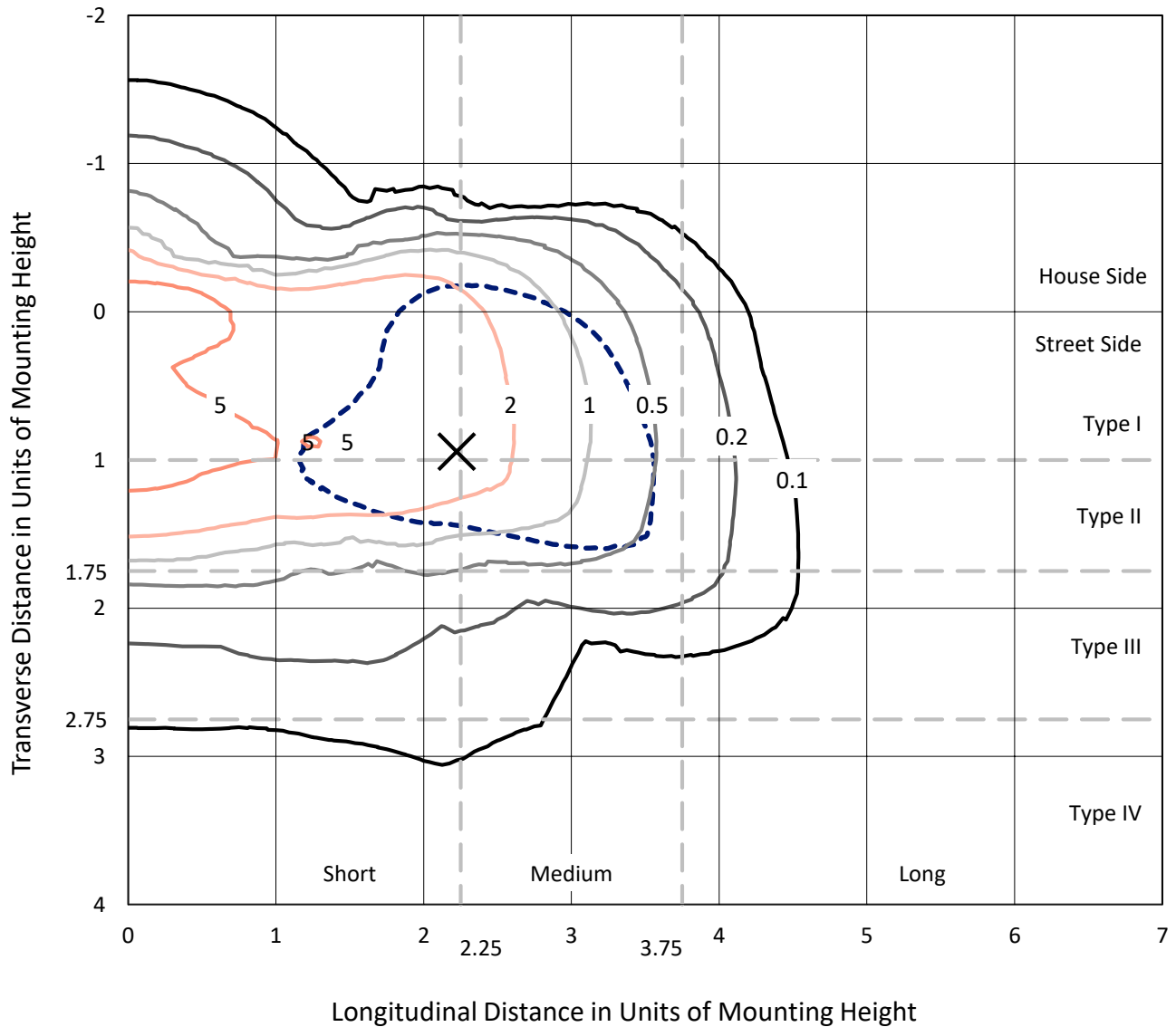
Input Watts (W): 295
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P299191
 CATALOG NUMBER: GLNA-AF-07-LED-E1-SL2-7027-800

Iso-Footcandle Lines of Horizontal Illumination

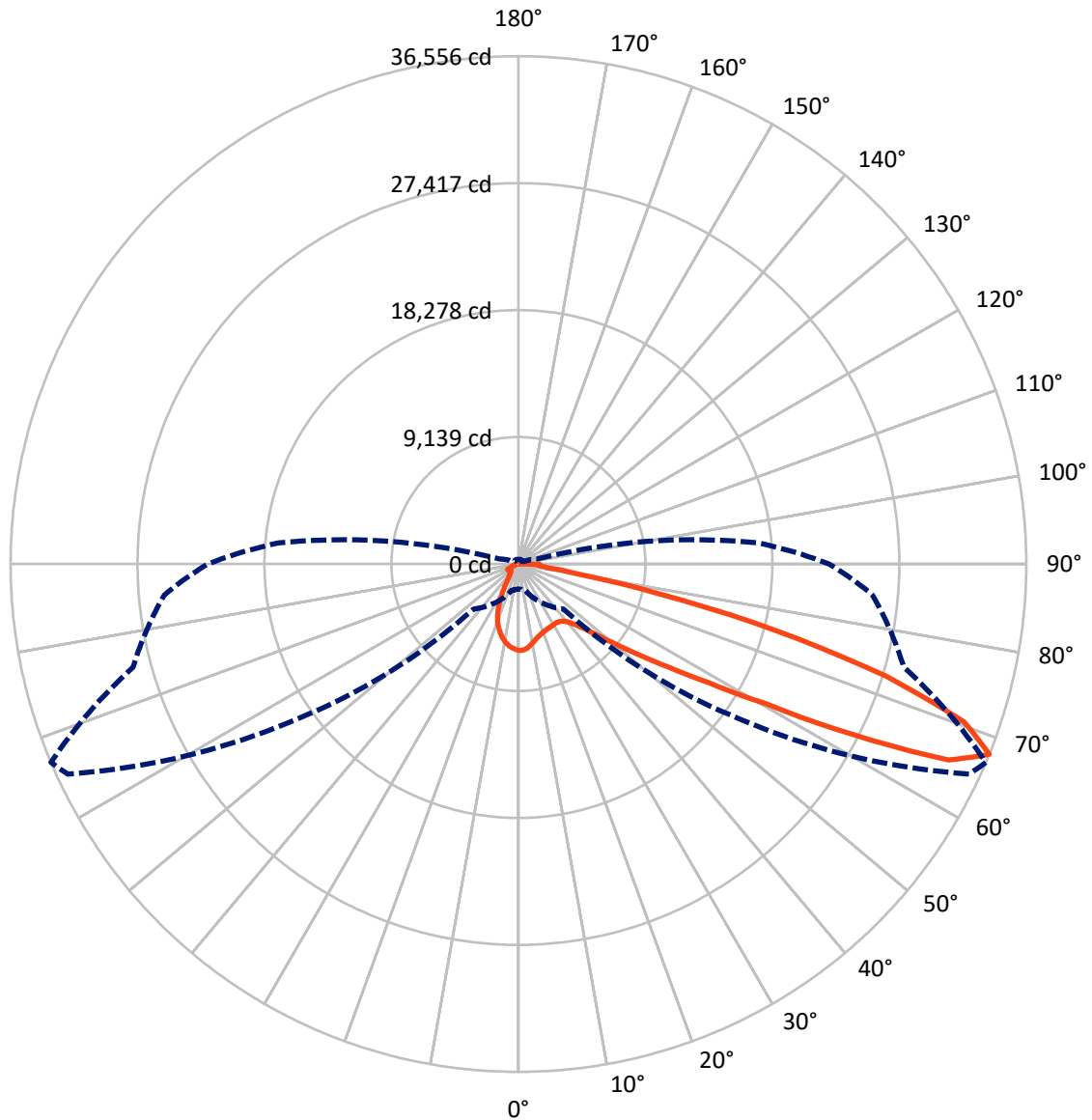
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10 fc
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P299191
CATALOG NUMBER: GLNA-AF-07-LED-E1-SL2-7027-800

Luminous Intensity Polar Plot



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

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CATALOG NUMBER: GLNA-AF-07-LED-E1-SL2-7027-800

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4780.3	0.0	4780.3
	% Fixture	16.6	0.0	16.6
Street Side	Lumens	24070.6	0.0	24070.6
	% Fixture	83.4	0.0	83.4
Total	Lumens	28850.9	0.0	28850.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	530.9	1.8
10°-20°	1228.5	4.3
20°-30°	1665.2	5.8
30°-40°	2367.3	8.2
40°-50°	3960.5	13.7
50°-60°	6265.5	21.7
60°-70°	7981.7	27.7
70°-80°	4180.8	14.5
80°-90°	670.5	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°	28850.9	100.0
0°-180°	28850.9	100.0



REPORT NUMBER: P299191

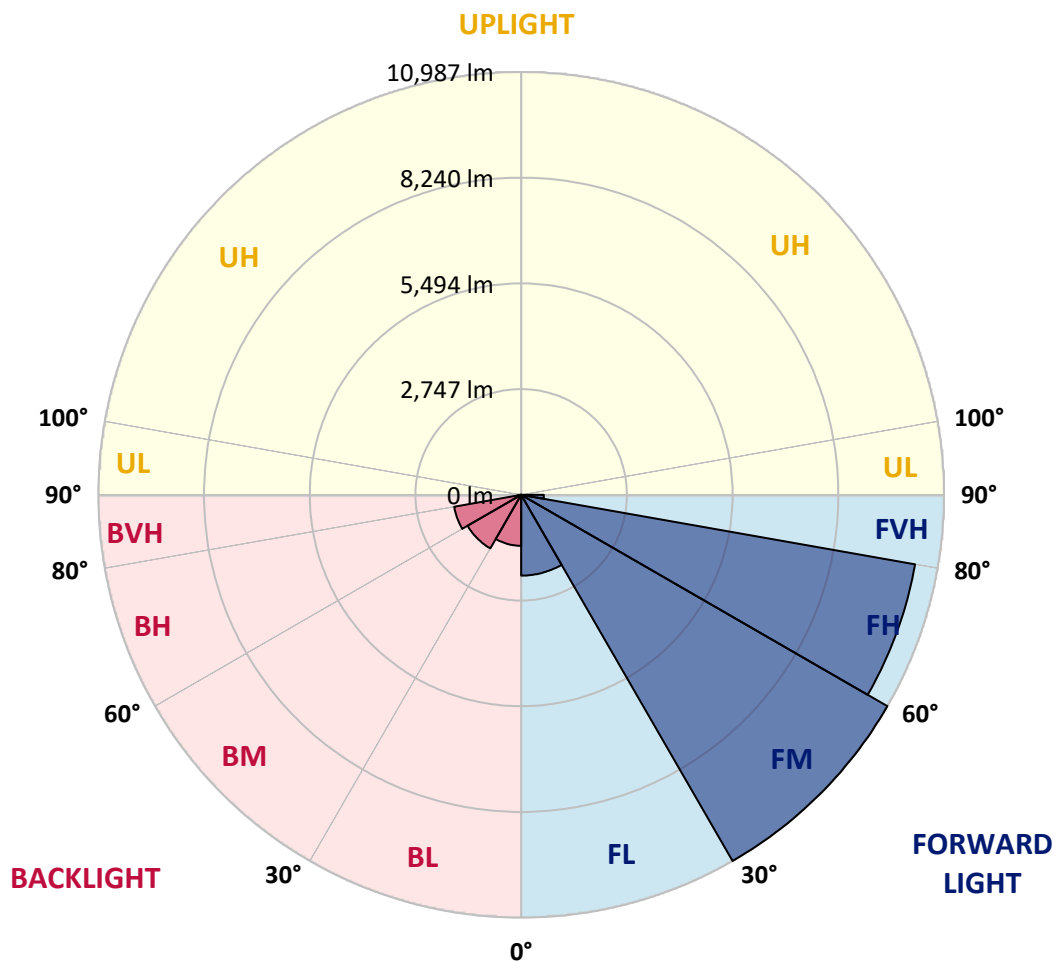
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2099.6	7.3			
FM	(30°-60°)	10987.0	38.1			
FH	(60°-80°)	10394.4	36.0			G4/12000
FVH	(80°-90°)	589.6	2.0			G4/750
BL	(0°-30°)	1325.0	4.6	B3/2500		
BM	(30°-60°)	1606.3	5.6	B2/2500		
BH	(60°-80°)	1768.1	6.1	B3/2500		G3/2500
BVH	(80°-90°)	80.9	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type II Short





REPORT NUMBER: P299191

CATALOG NUMBER: GLNA-AF-07-LED-E1-SL2-7027-800

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	6223.1	6223.1	6223.1	6223.1	6223.1	6223.1	6223.1	6223.1	6223.1	6223.1	6223.1
2.5°	5967.0	5976.9	6008.2	6028.2	6117.8	6156.2	6183.2	6210.3	6214.5	6227.3	6214.5
5°	5341.0	5362.3	5420.6	5486.1	5659.7	5796.2	5939.9	6089.3	6116.4	6213.1	6240.1
7.5°	4855.8	4850.1	4898.5	4976.8	5154.6	5343.8	5595.6	5893.0	5951.3	6169.0	6274.3
10°	4501.6	4497.3	4548.5	4629.6	4798.9	4978.2	5262.7	5669.6	5752.1	6099.3	6307.0
12.5°	4239.8	4241.2	4292.4	4382.0	4554.2	4734.9	5023.7	5453.4	5558.7	6018.2	6341.2
15°	4066.2	4077.6	4118.8	4214.2	4382.0	4562.7	4845.9	5291.2	5409.3	5954.2	6379.6
17.5°	4007.9	4026.4	4040.6	4110.3	4254.0	4434.7	4712.1	5171.7	5296.9	5910.1	6413.7
20°	4061.9	4083.3	4056.2	4080.4	4171.5	4330.8	4606.8	5077.8	5205.8	5860.3	6418.0
22.5°	4293.8	4313.8	4234.1	4164.4	4158.7	4255.4	4520.1	5003.8	5136.1	5823.3	6419.4
25°	4702.2	4715.0	4581.2	4419.0	4261.1	4228.4	4458.9	4952.6	5093.4	5790.6	6392.4
27.5°	5203.0	5212.9	5059.3	4820.2	4503.0	4292.4	4437.5	4922.7	5069.2	5762.1	6346.9
30°	5811.9	5858.9	5652.6	5350.9	4888.5	4481.6	4480.2	4907.0	5042.2	5713.7	6257.2
32.5°	6435.1	6455.0	6312.7	6006.8	5407.8	4814.6	4599.7	4918.4	5035.1	5655.4	6143.4
35°	7066.8	7092.4	6999.9	6753.8	6117.8	5302.6	4833.1	4985.3	5079.2	5635.5	6063.7
37.5°	7884.8	7919.0	7790.9	7506.4	6981.4	5964.1	5221.5	5153.2	5214.3	5692.4	6039.5
40°	9178.1	9162.5	8788.3	8364.3	7926.1	6810.7	5776.3	5437.7	5473.3	5875.9	6113.5
42.5°	10683.4	10645.0	10000.5	9334.6	8964.7	7835.0	6510.5	5931.4	5924.3	6237.3	6373.9
45°	11884.2	11852.9	11272.4	10451.5	10155.5	9001.7	7459.4	6667.0	6614.3	6810.7	6854.8
47.5°	12534.4	12535.8	12201.4	11531.3	11524.2	10484.2	8678.7	7731.2	7640.1	7732.6	7685.7
50°	12306.7	12336.6	12301.0	12087.6	12773.4	12427.6	10270.8	9215.1	9031.6	9122.6	8941.9
52.5°	11205.5	11243.9	11454.5	11781.7	13298.4	14776.6	12609.8	11059.0	10845.6	10812.8	10612.2
55°	9253.5	9300.5	9730.1	10619.3	12861.6	16354.4	16300.4	13409.3	13069.3	12760.6	12675.2
57.5°	6378.2	6456.4	7147.9	8468.2	11448.8	16831.0	20695.2	16759.9	16068.4	14990.0	15009.9
60°	3595.3	3686.3	4501.6	5700.9	8597.6	16313.2	24038.6	21834.8	20375.1	17600.7	17748.7
62.5°	2286.3	2384.5	3003.4	3960.9	5158.9	13524.6	25408.7	28890.2	27036.4	20819.0	20964.1
65°	1851.0	1893.7	2185.3	3269.5	3746.1	8148.0	24368.7	34702.1	34010.6	24903.7	24226.4
67.5°	1806.9	1821.1	1971.9	2744.5	3592.4	4579.8	19437.5	35789.1	36555.9	28718.0	25585.2
70°	1785.5	1835.3	2222.3	2619.3	3440.2	3862.7	11680.7	32809.8	34020.6	29715.4	23776.9
72.5°	866.4	863.6	1118.3	2368.9	3875.5	4006.4	6001.1	26546.9	27762.0	25744.5	19538.5
75°	698.6	638.8	610.4	867.9	3726.2	4137.3	3824.3	18266.6	19145.8	17260.7	12010.8
77.5°	663.0	591.9	542.1	543.5	1575.0	4387.7	3239.6	10110.0	10366.1	7796.6	3290.8
80°	549.2	483.7	448.2	505.1	762.6	4178.6	3502.8	4575.5	4198.5	1915.0	1095.5
82.5°	381.3	347.1	337.2	424.0	610.4	2977.8	4073.3	2458.5	2061.6	958.9	675.8
85°	243.3	207.7	230.5	308.7	475.2	1374.4	4195.7	1916.4	1523.8	608.9	381.3
87.5°	112.4	91.1	113.8	170.7	310.2	473.8	3992.2	2152.6	1569.3	321.5	240.4
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°	6223.1	6223.1	6223.1	6223.1	6223.1	6223.1	6223.1	6223.1	6223.1	6223.1	6223.1
2.5°	6225.9	6198.9	6177.5	6137.7	6093.6	6050.9	6012.5	5964.1	5949.9	5937.1	5957.0
5°	6245.8	6218.8	6140.6	6018.2	5883.0	5756.4	5629.8	5521.7	5454.8	5417.8	5439.1
7.5°	6275.7	6237.3	6075.1	5850.3	5607.0	5385.1	5156.0	4972.5	4837.3	4773.3	4791.8
10°	6302.7	6228.8	5964.1	5626.9	5271.3	4941.2	4579.8	4281.0	4059.1	3942.4	3970.9
12.5°	6314.1	6196.0	5809.1	5348.1	4860.1	4376.4	3844.2	3397.5	3078.8	2962.1	2938.0
15°	6325.5	6159.0	5638.3	5030.8	4363.5	3679.2	2933.7	2398.7	2134.1	2075.8	2063.0
17.5°	6328.4	6095.0	5444.8	4686.5	3781.6	2849.8	2006.1	1666.0	1667.5	1761.4	1772.7
20°	6298.5	5999.7	5210.1	4258.3	3084.5	1970.5	1377.2	1318.9	1533.7	1768.5	1796.9
22.5°	6230.2	5873.1	4944.0	3758.9	2286.3	1297.5	1065.6	1129.7	1407.1	1694.5	1727.2
25°	6143.4	5719.4	4629.6	3179.8	1513.8	927.6	893.5	971.7	1159.5	1351.6	1370.1
27.5°	6025.3	5537.3	4276.8	2516.8	983.1	764.0	786.8	839.4	916.2	1001.6	1010.1
30°	5873.1	5319.6	3899.7	1835.3	742.7	687.2	719.9	748.4	781.1	829.5	833.7
32.5°	5698.1	5110.5	3512.7	1267.7	658.7	647.3	673.0	687.2	712.8	742.7	745.5
35°	5551.5	4911.3	3111.5	896.3	623.2	617.5	634.5	640.2	664.4	697.1	700.0
37.5°	5467.6	4749.1	2697.5	722.8	599.0	590.4	600.4	600.4	634.5	682.9	690.0
40°	5473.3	4659.5	2283.5	653.0	579.1	567.7	569.1	569.1	613.2	665.8	670.1
42.5°	5628.4	4682.2	1916.4	626.0	563.4	550.6	543.5	547.8	584.7	618.9	621.7
45°	5992.6	4843.0	1572.1	608.9	547.8	543.5	527.8	526.4	540.6	556.3	556.3
47.5°	6590.1	5160.3	1338.8	597.6	535.0	533.5	515.0	496.5	495.1	500.8	500.8
50°	7561.9	5706.6	1182.3	584.7	526.4	515.0	493.7	465.2	455.3	459.5	459.5
52.5°	9018.8	6681.2	1122.5	567.7	507.9	489.4	465.2	436.8	428.2	429.7	429.7
55°	10929.5	8177.9	1114.0	547.8	488.0	458.1	438.2	416.9	406.9	409.7	409.7
57.5°	13264.2	10248.0	1266.2	516.5	461.0	426.8	415.4	401.2	394.1	398.4	396.9
60°	16102.6	12956.9	1878.0	483.7	433.9	398.4	398.4	387.0	381.3	385.6	384.1
62.5°	19372.1	16068.4	2640.6	459.5	405.5	375.6	381.3	375.6	369.9	372.8	371.3
65°	22271.6	18095.9	2472.7	441.0	377.0	354.3	364.2	361.4	357.1	360.0	358.5
67.5°	22355.5	17344.6	1388.6	421.1	350.0	332.9	347.1	345.7	342.9	345.7	344.3
70°	19951.1	14645.7	782.5	384.1	321.5	307.3	327.2	325.8	323.0	328.7	327.2
72.5°	15984.5	10627.9	571.9	338.6	293.1	280.3	303.0	301.6	301.6	310.2	305.9
75°	9198.0	5469.0	456.7	290.2	263.2	253.2	273.2	274.6	277.4	288.8	280.3
77.5°	2622.1	1704.4	372.8	246.1	226.2	221.9	241.9	244.7	246.1	258.9	247.6
80°	974.6	785.4	307.3	206.3	185.0	186.4	204.9	209.1	210.6	223.4	209.1
82.5°	621.7	517.9	249.0	159.3	145.1	143.7	166.5	172.2	172.2	173.6	165.0
85°	362.8	310.2	187.8	115.2	102.4	98.2	123.8	133.7	129.5	126.6	120.9
87.5°	243.3	213.4	115.2	64.0	55.5	52.6	72.6	79.7	76.8	72.6	68.3
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)