

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: P301845

Luminaire Tested: **GLNA-AF-08-LED-E1-SL4-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301845
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24301)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-08-LED-E1-SL4-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(8) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
w/Spill Control WITH HOUSESIDE SHEILD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 35178.4 lumens
Efficiency: N/A
Efficacy: 79.1 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G5

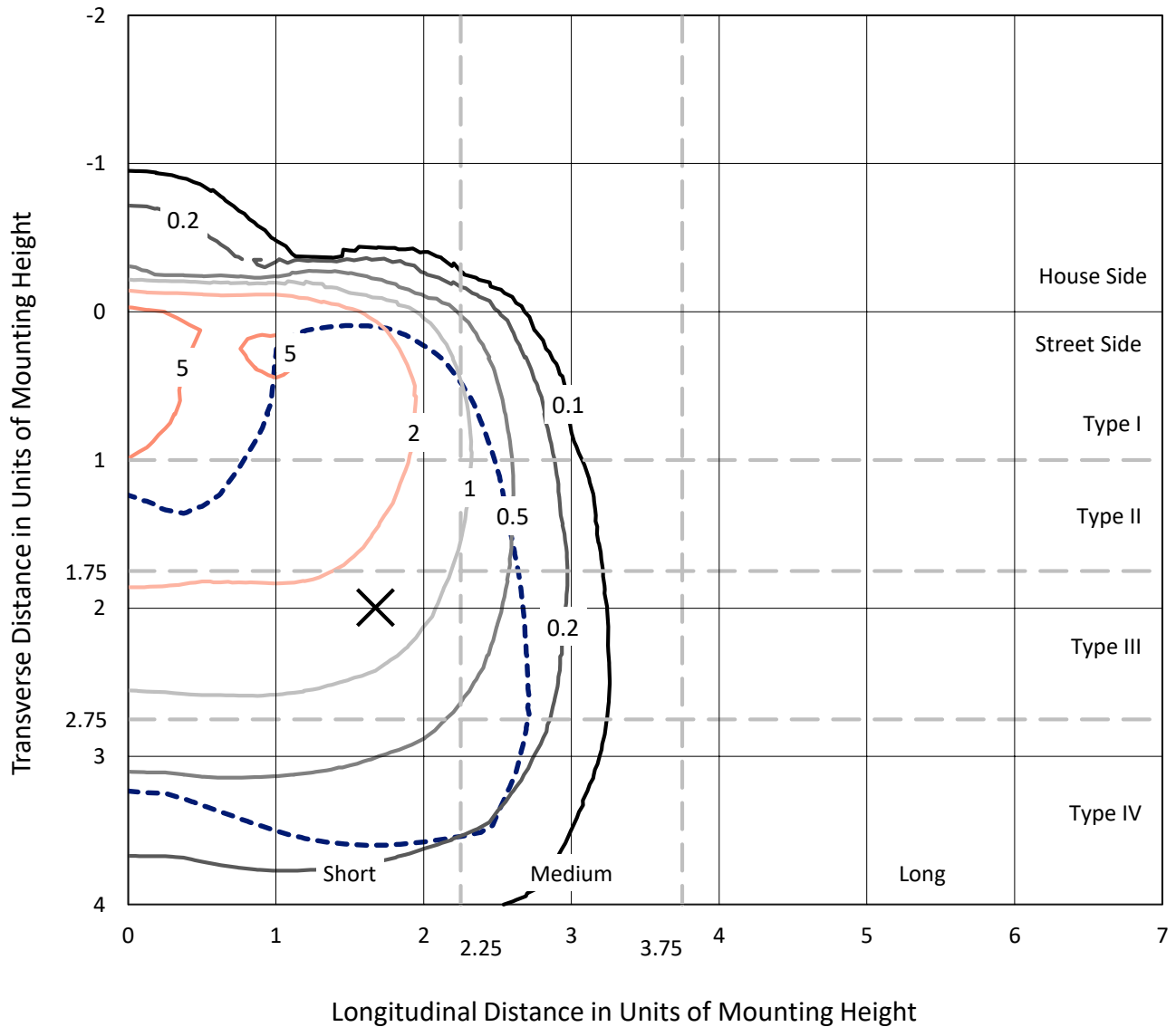
Input Watts (W): 445
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

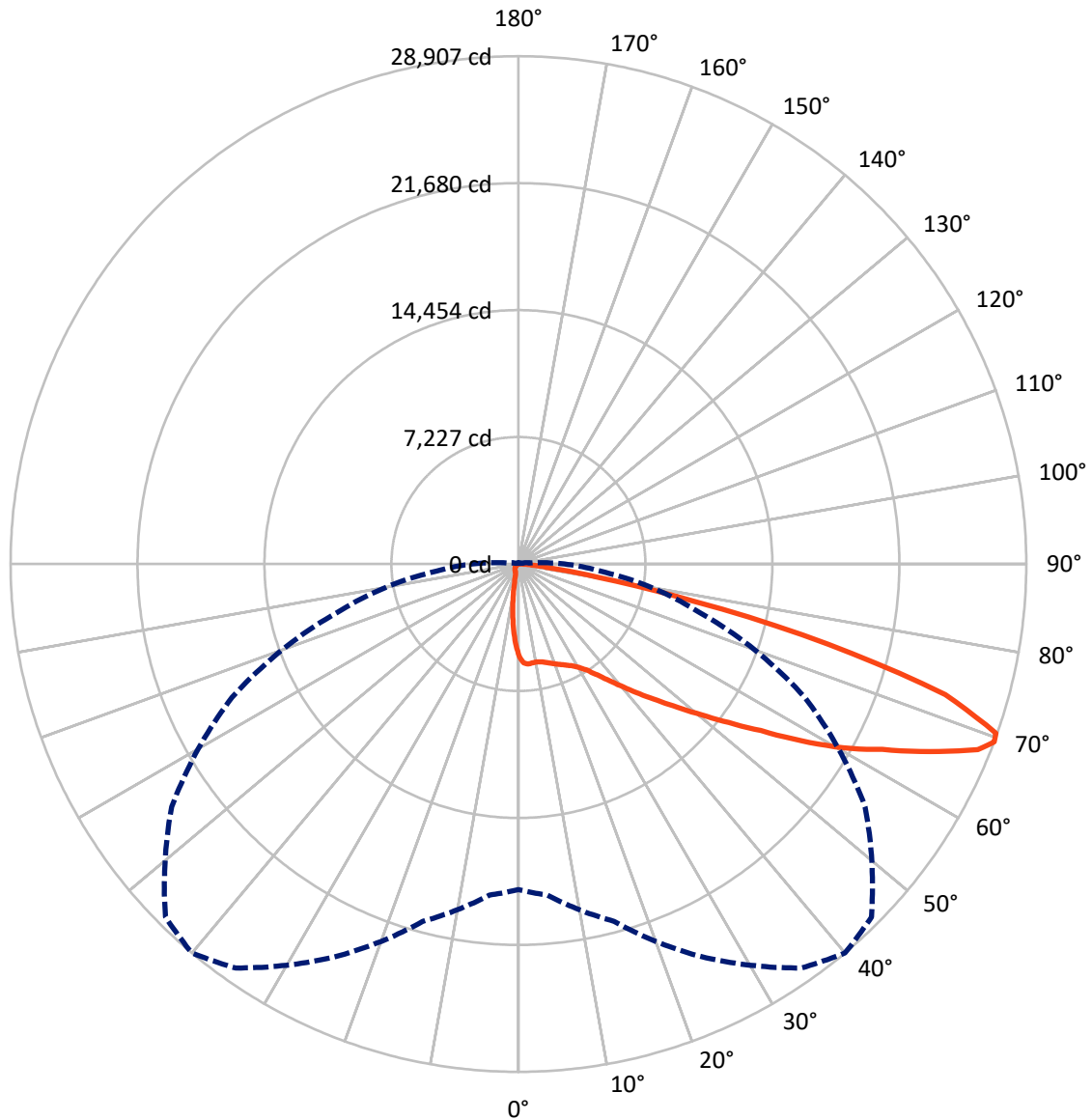
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.4 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2058.1	0.0	2058.1
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	33120.3	0.0	33120.3
	% Fixture	94.1	0.0	94.1
Total	Lumens	35178.4	0.0	35178.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	426.1	1.2
10°-20°	1048.0	3.0
20°-30°	1765.1	5.0
30°-40°	2889.6	8.2
40°-50°	5003.2	14.2
50°-60°	7880.6	22.4
60°-70°	10291.7	29.3
70°-80°	5300.7	15.1
80°-90°	573.4	1.6
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°	35178.4	100.0
0°-180°	35178.4	100.0

Coefficient of Utilization



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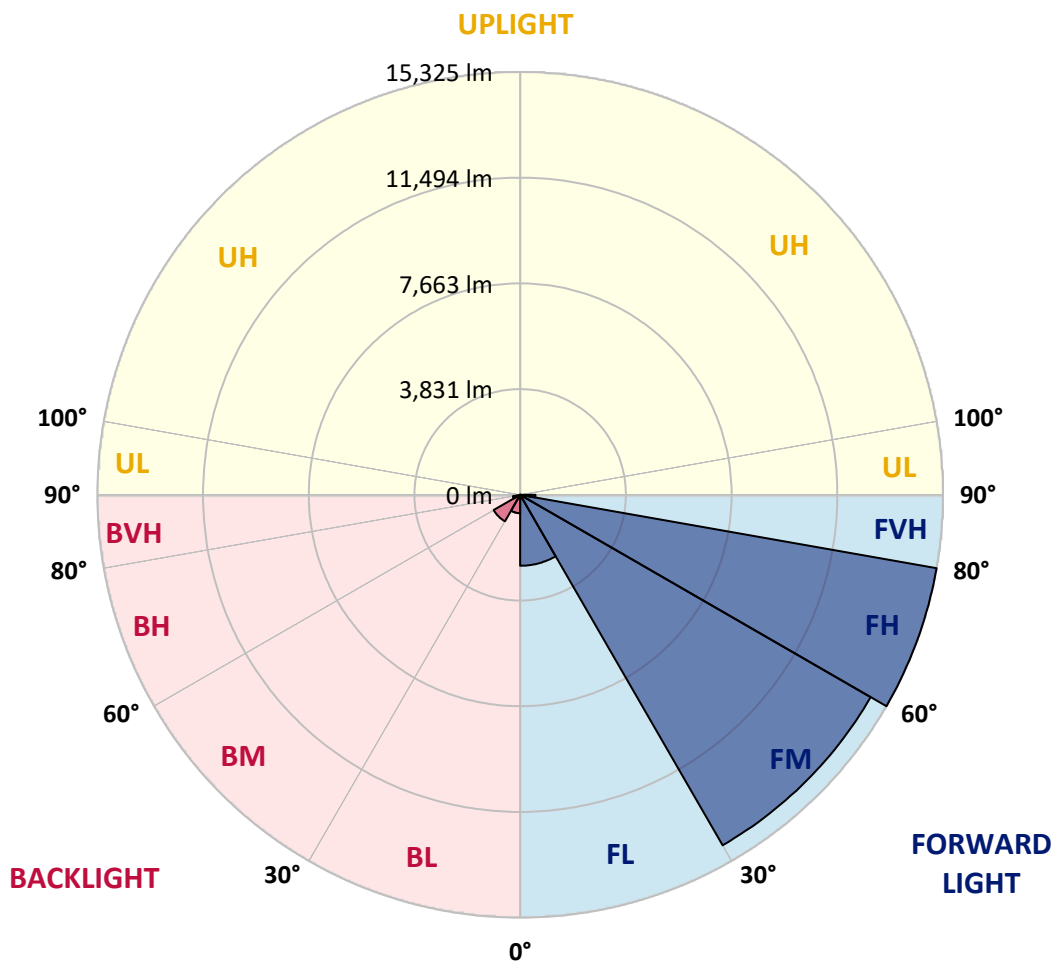
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2572.6	7.3			
FM (30°-60°)	14667.2	41.7			
FH (60°-80°)	15325.2	43.6			G5
FVH (80°-90°)	555.4	1.6			G4/750
BL (0°-30°)	666.7	1.9	B2/1000		
BM (30°-60°)	1106.2	3.1	B2/2500		
BH (60°-80°)	267.2	0.8	B1/500		G1/500
BVH (80°-90°)	18.0	0.1			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	5255.8	5255.8	5255.8	5255.8	5255.8	5255.8	5255.8	5255.8	5255.8	5255.8	5255.8
2.5°	5771.0	5739.5	5720.7	5695.6	5664.2	5636.9	5626.5	5549.0	5475.7	5375.2	5260.0
5°	5877.7	5867.3	5833.8	5800.3	5762.6	5720.7	5697.7	5605.5	5500.8	5354.3	5153.2
7.5°	5888.2	5875.7	5833.8	5787.7	5735.4	5685.1	5645.3	5553.2	5456.9	5308.2	5063.2
10°	5871.5	5856.8	5825.4	5775.1	5710.2	5662.1	5622.3	5534.3	5452.7	5318.7	5046.4
12.5°	5852.6	5838.0	5823.3	5798.2	5741.6	5708.1	5674.6	5590.9	5517.6	5404.5	5107.2
15°	5871.5	5863.1	5879.8	5869.4	5838.0	5808.6	5775.1	5699.8	5632.8	5538.5	5218.1
17.5°	5951.0	5951.0	6003.4	6009.7	5980.3	5938.5	5890.3	5814.9	5758.4	5678.8	5350.1
20°	6137.4	6131.1	6198.1	6210.7	6139.5	6074.6	6003.4	5911.2	5867.3	5817.0	5479.9
22.5°	6457.8	6428.5	6468.2	6455.7	6315.4	6214.9	6126.9	6013.9	5990.8	5967.8	5624.4
25°	6874.5	6857.7	6884.9	6761.4	6514.3	6378.2	6273.5	6145.8	6145.8	6168.8	5787.7
27.5°	7479.6	7416.8	7324.7	7106.9	6736.3	6562.5	6449.4	6313.3	6348.9	6434.7	6003.4
30°	8099.4	8030.3	7818.8	7483.8	7006.4	6824.2	6692.3	6549.9	6633.7	6790.7	6292.3
32.5°	8710.9	8633.4	8334.0	7911.0	7393.8	7211.6	7083.9	6926.8	7067.1	7331.0	6715.3
35°	9303.5	9234.4	8888.9	8390.5	7908.9	7758.1	7640.9	7504.8	7684.8	8053.4	7312.1
37.5°	9969.3	9894.0	9473.1	8932.8	8535.0	8426.1	8340.2	8204.1	8518.2	9058.5	8143.4
40°	10788.1	10660.3	10092.9	9554.7	9259.5	9207.1	9148.5	9129.7	9617.6	10365.1	9251.1
42.5°	11726.2	11516.8	10742.0	10210.1	10055.2	10092.9	10078.2	10162.0	10993.3	11990.0	10599.6
45°	12664.3	12394.1	11464.4	10909.5	10930.5	11062.4	11144.1	11479.1	12716.6	13853.6	12050.7
47.5°	13460.0	13194.0	12157.5	11665.4	11916.7	12176.4	12398.3	13032.8	14488.1	15687.9	13179.4
50°	14140.5	13889.2	12892.5	12496.7	13062.1	13480.9	13841.1	14781.3	16393.6	17084.6	13970.9
52.5°	14697.5	14530.0	13654.7	13449.5	14370.8	14984.4	15512.1	16638.6	18081.3	18219.5	14586.5
55°	15239.8	15120.5	14473.4	14582.3	15907.8	16743.3	17411.3	18609.0	19534.5	19166.0	15177.0
57.5°	15863.8	15755.0	15407.4	16018.8	17928.5	18979.6	19708.3	20355.4	20814.0	20133.4	15734.0
60°	16500.4	16437.6	16446.0	17614.4	20248.6	21257.9	21659.9	21827.4	22070.3	21044.3	15765.4
62.5°	17107.6	17227.0	17633.2	19390.1	22470.3	23245.0	23448.2	23613.6	23328.8	21188.8	14565.6
65°	18135.8	18330.5	19300.0	21766.7	24913.9	25743.1	25952.5	25385.1	23527.7	19321.0	11847.6
67.5°	18638.3	18994.3	20723.9	23982.1	27284.3	28205.6	28128.2	25500.2	21113.4	14733.1	7603.2
69°	18533.6	18912.6	21052.7	24660.6	28071.6	28907.1	28415.0	24091.0	17987.1	10672.9	4667.4
70°	18119.0	18502.2	20883.1	24635.4	28172.1	28833.8	27883.2	22350.9	15208.4	7804.2	2919.0
72.5°	15131.0	15461.8	18539.9	22267.2	25952.5	25414.4	23326.7	15484.8	7410.5	2125.4	657.5
75°	9313.9	9498.2	13302.9	16774.7	19601.6	18219.5	15541.4	7703.7	2209.1	601.0	364.3
77.5°	4920.8	5004.6	7282.8	9887.7	12425.6	10281.3	7965.4	3004.8	1017.7	376.9	263.8
80°	2908.5	2971.3	3922.0	4520.9	5377.3	4491.5	3184.9	1844.8	728.7	236.6	234.5
82.5°	1664.7	1704.5	2843.6	2512.8	2119.1	1809.2	1585.1	1748.5	437.6	159.1	242.9
85°	611.4	619.8	1599.8	1911.8	1260.6	749.6	787.3	1449.0	117.3	100.5	190.6
87.5°	284.8	278.5	822.9	1170.5	737.1	475.3	613.5	318.3	46.1	64.9	52.3
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°	5255.8	5255.8	5255.8	5255.8	5255.8	5255.8	5255.8	5255.8	5255.8	5255.8	5255.8
2.5°	5193.0	5115.5	4975.2	4830.8	4684.2	4571.1	4460.1	4372.2	4342.9	4288.4	4292.6
5°	5033.9	4891.5	4598.3	4301.0	3991.1	3735.6	3494.8	3300.1	3205.9	3109.5	3109.5
7.5°	4895.7	4688.4	4229.8	3746.1	3245.6	2824.8	2445.7	2161.0	2003.9	1878.3	1876.2
10°	4843.3	4562.7	3922.0	3228.9	2531.6	1957.9	1507.7	1218.7	1070.0	973.7	969.5
12.5°	4866.4	4518.8	3685.4	2751.5	1876.2	1258.5	873.2	686.8	624.0	594.7	594.7
15°	4933.4	4506.2	3448.8	2284.5	1325.5	787.3	580.0	529.8	525.6	525.6	525.6
17.5°	5015.0	4510.4	3205.9	1830.1	902.5	563.3	500.5	494.2	498.4	498.4	498.4
20°	5098.8	4512.5	2944.1	1409.2	636.6	490.0	471.1	469.0	473.2	473.2	475.3
22.5°	5201.4	4523.0	2682.4	1053.3	525.6	462.8	448.1	448.1	450.2	450.2	448.1
25°	5318.7	4543.9	2410.1	781.0	479.5	443.9	431.4	429.3	431.4	429.3	427.2
27.5°	5465.2	4573.2	2106.5	611.4	458.6	425.1	414.6	414.6	412.5	410.4	408.3
30°	5649.5	4606.7	1765.2	519.3	437.6	408.3	397.9	395.8	393.7	389.5	389.5
32.5°	5930.1	4680.0	1428.1	471.1	414.6	385.3	376.9	376.9	372.7	368.5	366.4
35°	6361.4	4824.5	1126.6	441.8	389.5	360.2	349.7	349.7	345.5	343.4	341.3
37.5°	6958.2	5044.3	875.3	414.6	364.3	332.9	322.5	320.4	316.2	312.0	309.9
40°	7751.8	5316.6	688.9	389.5	339.2	305.7	297.3	293.2	284.8	278.5	278.5
42.5°	8748.6	5626.5	559.1	362.3	309.9	280.6	274.3	268.0	253.4	247.1	245.0
45°	9791.4	5905.0	473.2	330.8	280.6	255.5	251.3	240.8	222.0	215.7	215.7
47.5°	10543.1	5969.9	416.7	301.5	253.4	228.2	226.1	207.3	190.6	186.4	184.3
50°	11012.1	5842.1	370.6	272.2	228.2	203.1	196.8	173.8	163.3	159.1	157.0
52.5°	11328.3	5613.9	332.9	247.1	205.2	180.1	165.4	148.7	140.3	136.1	136.1
55°	11581.7	5291.4	295.2	224.1	186.4	161.2	140.3	127.7	119.4	115.2	115.2
57.5°	11652.9	4853.8	257.6	205.2	167.5	142.4	119.4	111.0	100.5	98.4	98.4
60°	11135.7	4064.4	228.2	182.2	150.8	123.5	104.7	94.2	83.8	81.7	79.6
62.5°	9772.5	3145.1	201.0	161.2	131.9	106.8	90.0	77.5	69.1	69.1	69.1
65°	7454.5	2108.6	175.9	140.3	115.2	90.0	77.5	62.8	58.6	58.6	60.7
67.5°	4462.2	1147.5	150.8	119.4	98.4	75.4	64.9	54.4	52.3	54.4	54.4
69°	2615.4	674.3	136.1	106.8	85.9	67.0	56.5	48.2	52.3	54.4	54.4
70°	1614.4	454.4	125.6	96.3	77.5	60.7	52.3	46.1	50.3	52.3	52.3
72.5°	450.2	234.5	100.5	75.4	62.8	50.3	41.9	41.9	48.2	50.3	50.3
75°	293.2	173.8	77.5	56.5	48.2	39.8	35.6	39.8	46.1	48.2	48.2
77.5°	242.9	142.4	62.8	46.1	39.8	37.7	33.5	35.6	41.9	44.0	44.0
80°	222.0	100.5	50.3	41.9	35.6	33.5	31.4	29.3	37.7	39.8	39.8
82.5°	211.5	79.6	44.0	37.7	33.5	29.3	27.2	29.3	33.5	35.6	37.7
85°	131.9	52.3	39.8	35.6	29.3	27.2	27.2	27.2	31.4	33.5	33.5
87.5°	48.2	41.9	35.6	29.3	25.1	25.1	25.1	25.1	27.2	31.4	31.4
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)