

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: P299744

Luminaire Tested: **GLNA-AF-09-LED-E1-SL2-7030-600-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299744
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24287)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-09-LED-E1-SL2-7030-600-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 3000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
w/Spill Control WITH HOUSESIDE SHEILD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25512.4 lumens
Efficiency: N/A
Efficacy: 88.0 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G4

Input Watts (W): 290
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

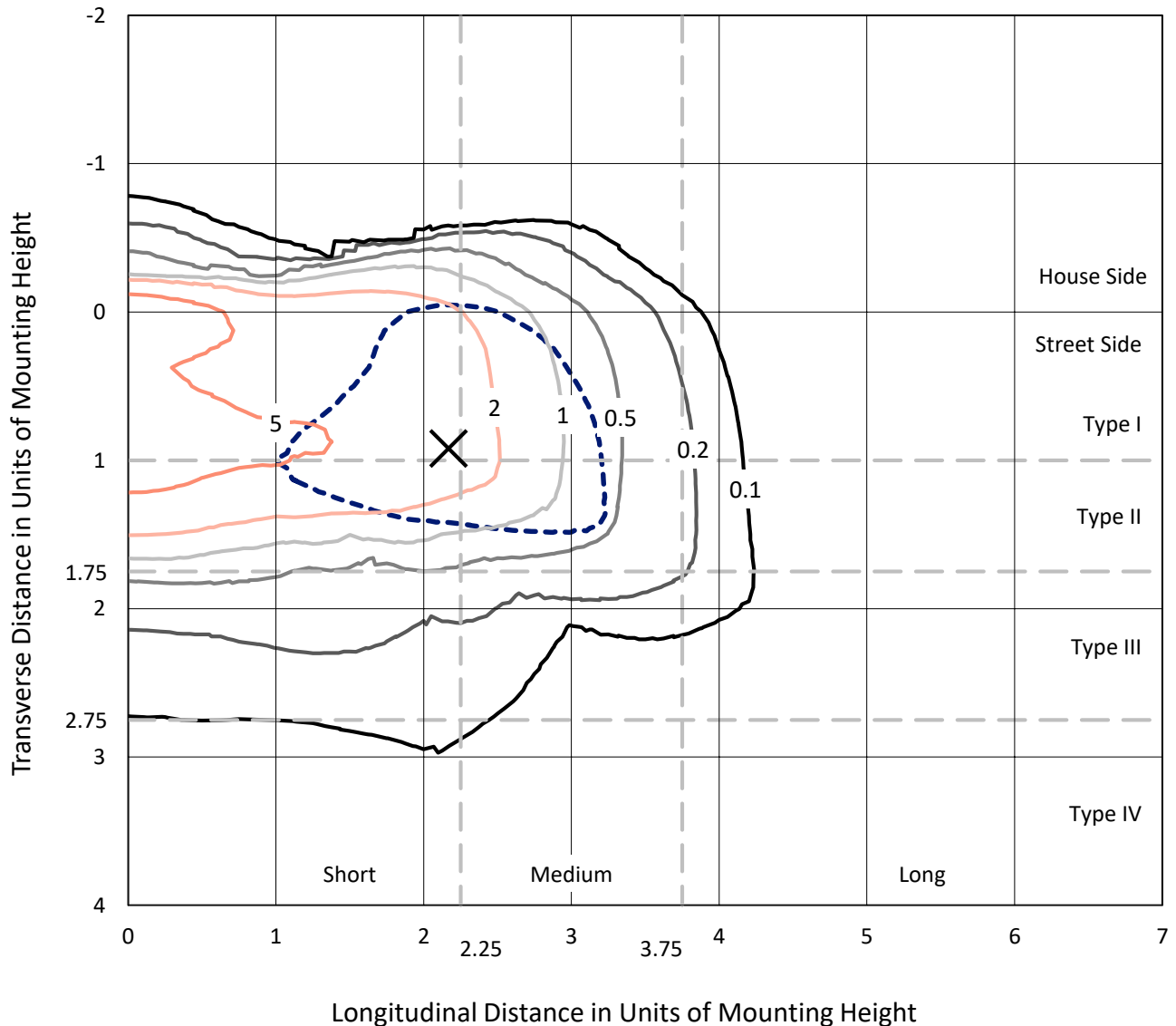


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

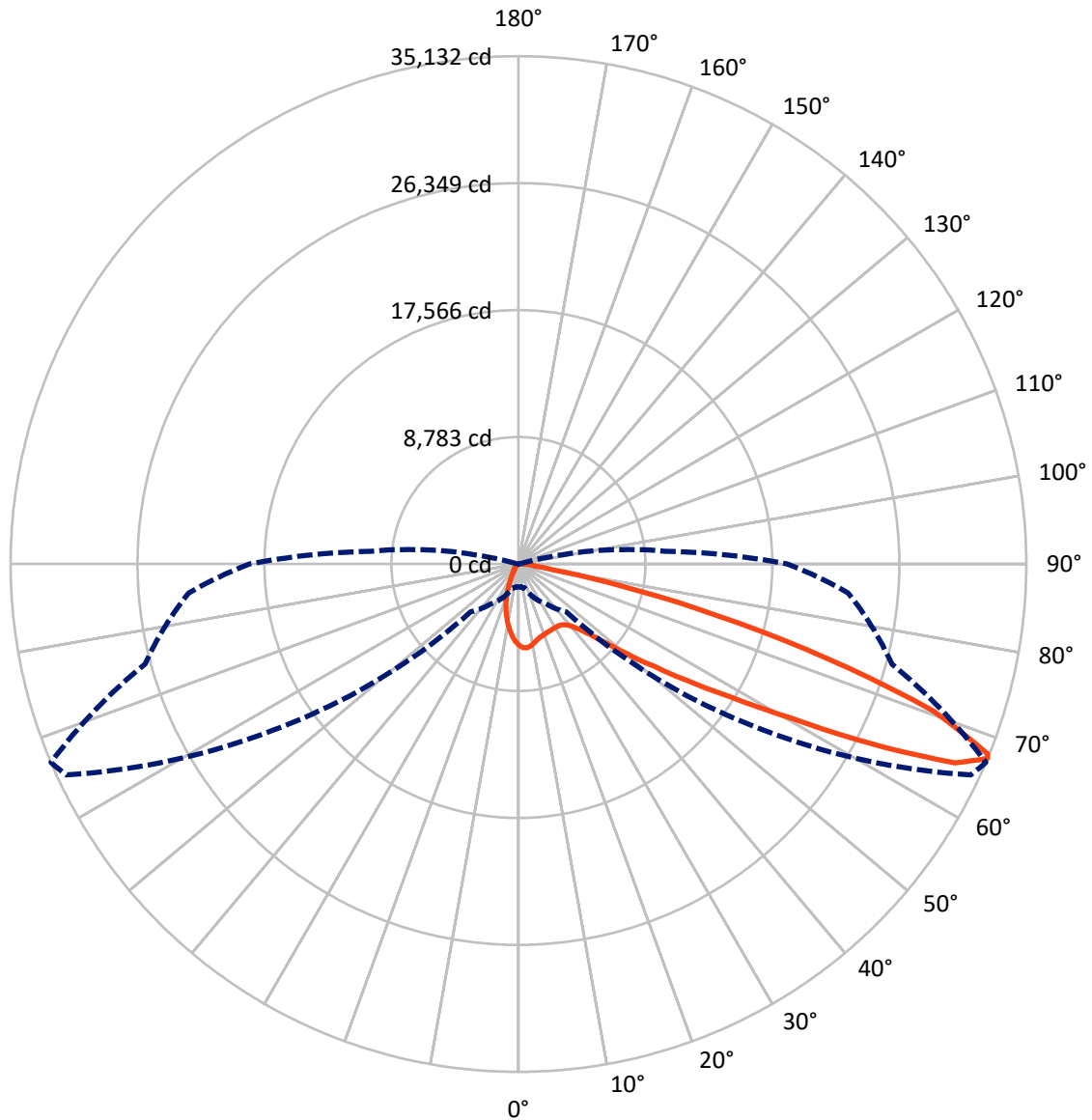


Based on 25 foot mounting height. Maximum calculated value = 9 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2648.9	0.0	2648.9
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	22863.4	0.0	22863.4
	% Fixture	89.6	0.0	89.6
Total	Lumens	25512.4	0.0	25512.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	457.8	1.8
10°-20°	974.4	3.8
20°-30°	1416.7	5.6
30°-40°	2210.1	8.7
40°-50°	3915.1	15.3
50°-60°	6195.2	24.3
60°-70°	7095.8	27.8
70°-80°	2943.3	11.5
80°-90°	304.0	1.2
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°	25512.4	100.0
0°-180°	25512.4	100.0



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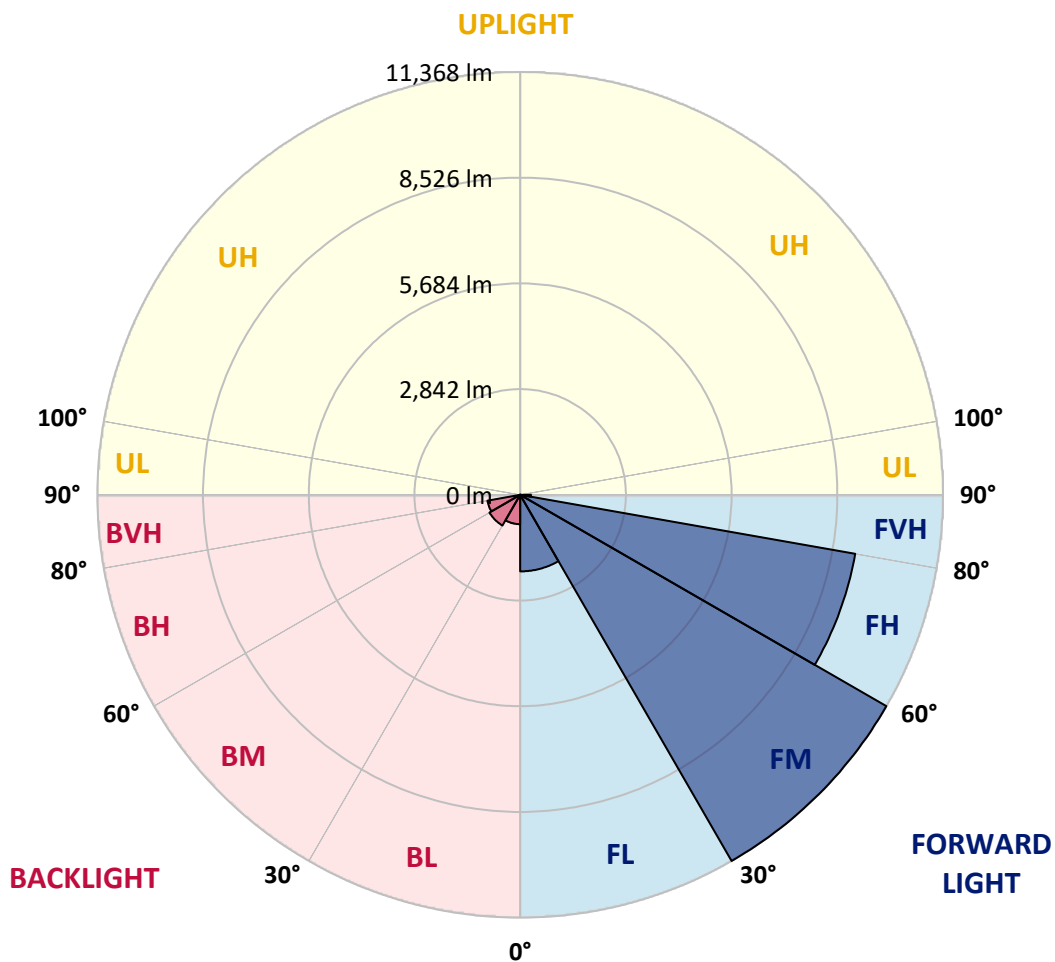
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2058.5	8.1			
FM (30°-60°)	11368.4	44.6			
FH (60°-80°)	9146.3	35.9			G4/12000
FVH (80°-90°)	290.3	1.1			G3/500
BL (0°-30°)	790.4	3.1	B2/1000		
BM (30°-60°)	952.0	3.7	B1/1000		
BH (60°-80°)	892.8	3.5	B2/1000		G2/1000
BVH (80°-90°)	13.7	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-G4

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	5626.4	5626.4	5626.4	5626.4	5626.4	5626.4	5626.4	5626.4	5626.4	5626.4	5626.4
2.5°	5816.9	5828.8	5827.3	5836.2	5857.1	5858.6	5837.7	5797.6	5788.6	5736.5	5645.8
5°	5364.5	5398.7	5419.6	5504.4	5599.6	5714.2	5800.5	5831.8	5827.3	5790.1	5653.2
7.5°	4848.2	4882.4	4906.2	5005.9	5132.4	5328.8	5553.5	5738.0	5754.4	5794.6	5647.3
10°	4504.4	4510.4	4543.1	4638.3	4770.8	4971.7	5239.5	5562.4	5611.5	5758.9	5632.4
12.5°	4221.7	4226.1	4269.3	4372.0	4513.3	4715.7	4997.0	5370.5	5446.4	5714.2	5629.4
15°	4020.8	4037.2	4075.8	4183.0	4333.3	4534.2	4822.9	5229.1	5319.9	5697.9	5656.2
17.5°	3953.8	3971.7	3983.6	4061.0	4197.9	4394.3	4690.4	5136.8	5239.5	5706.8	5708.3
20°	4023.8	4037.2	4010.4	4029.7	4114.5	4290.1	4578.8	5058.0	5180.0	5717.2	5775.2
22.5°	4284.2	4290.1	4217.2	4132.4	4117.5	4214.2	4491.0	4995.5	5126.4	5745.5	5854.1
25°	4730.6	4720.2	4601.1	4418.1	4245.5	4200.8	4438.9	4956.8	5099.6	5775.2	5935.9
27.5°	5269.3	5284.2	5120.5	4854.1	4525.2	4290.1	4431.5	4940.4	5087.7	5796.1	6007.4
30°	5924.0	5944.9	5757.4	5422.6	4950.8	4510.4	4499.9	4937.4	5080.3	5782.7	6013.3
32.5°	6592.2	6617.5	6470.2	6124.9	5519.3	4879.4	4654.7	4970.2	5095.2	5736.5	5979.1
35°	7291.6	7327.3	7229.1	6933.0	6290.1	5412.1	4927.0	5069.9	5165.1	5732.1	5944.9
37.5°	8257.3	8290.1	8105.6	7791.6	7223.1	6126.4	5364.5	5257.4	5330.3	5803.5	5953.8
40°	9699.3	9694.8	9218.6	8738.0	8248.4	7034.1	5979.1	5596.7	5633.9	6019.3	6063.9
42.5°	11270.7	11263.3	10559.4	9828.8	9386.8	8151.7	6787.1	6183.0	6157.7	6416.6	6349.6
45°	12482.0	12480.5	11906.1	11083.2	10757.3	9434.4	7831.8	6998.4	6959.7	7062.4	6876.4
47.5°	12998.4	13007.3	12718.6	12139.7	12276.6	11169.5	9148.7	8180.0	8121.9	8080.3	7797.5
50°	12596.6	12614.4	12638.2	12525.2	13391.2	13501.3	10915.1	9845.1	9816.9	9630.8	9188.9
52.5°	11284.1	11374.9	11654.6	12013.3	13778.1	15739.4	13684.4	11913.6	11761.8	11563.9	11077.3
55°	9072.8	9172.5	9703.8	10574.3	13202.2	17209.6	17565.3	14580.2	14327.2	13736.5	13034.1
57.5°	6004.4	6159.2	6930.0	8037.1	11529.6	17446.2	21437.3	18281.0	17400.1	15782.6	14990.9
60°	3308.0	3456.8	4293.1	5296.1	8327.3	16276.6	24041.4	23099.4	21542.9	18069.7	17367.4
62.5°	2037.2	2117.5	2735.1	3668.1	4994.0	12846.6	24580.1	29154.4	27352.4	21014.6	20237.9
65°	1622.0	1656.2	1958.3	2998.5	3580.3	7641.3	22840.5	33770.4	33169.3	24580.1	22807.8
67°	1574.4	1587.8	1730.6	2574.4	3375.0	4684.5	19135.2	34521.9	35132.0	26737.8	22888.1
67.5°	1584.8	1599.7	1735.1	2456.8	3369.0	4305.0	17858.4	34225.8	34996.6	26908.9	22532.5
70°	1528.3	1574.4	1986.6	2455.3	3203.8	3577.3	10694.8	29654.4	30456.5	25002.7	19118.8
72.5°	541.7	544.6	858.6	1986.6	3483.6	3616.0	5370.5	21739.3	22333.1	19126.3	13784.1
75°	321.4	273.8	285.7	565.5	3328.8	3511.9	3098.2	13891.2	14112.9	10959.7	6980.6
77.5°	221.7	193.5	199.4	250.0	1267.8	3462.8	2461.3	7244.0	7007.4	3843.7	1486.6
80°	126.5	111.6	119.0	218.7	461.3	3230.6	2321.4	2937.5	2504.4	651.8	410.7
82.5°	67.0	56.5	68.5	180.1	321.4	2013.4	2325.9	1419.6	1125.0	220.2	279.8
85°	23.8	19.3	32.7	123.5	214.3	617.6	2156.2	1193.4	937.5	107.1	212.8
87.5°	4.5	4.5	13.4	50.6	86.3	189.0	1275.3	708.3	474.7	64.0	145.8
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°	5626.4	5626.4	5626.4	5626.4	5626.4	5626.4	5626.4	5626.4	5626.4	5626.4	5626.4
2.5°	5608.6	5544.6	5458.3	5352.6	5227.6	5117.5	5035.7	4950.8	4933.0	4903.2	4898.8
5°	5571.4	5461.2	5247.0	5001.4	4739.5	4502.9	4311.0	4139.8	4063.9	3998.5	3991.0
7.5°	5516.3	5351.1	4986.6	4590.7	4181.5	3809.5	3494.0	3270.8	3065.4	2967.2	2952.3
10°	5452.3	5215.7	4693.4	4144.3	3578.8	3053.5	2584.8	2191.9	1953.8	1812.5	1794.6
12.5°	5392.8	5083.3	4394.3	3681.5	2930.0	2227.7	1625.0	1250.0	1000.0	898.8	886.9
15°	5364.5	4976.1	4114.5	3208.3	2251.5	1418.1	888.4	687.5	605.6	581.8	580.4
17.5°	5361.5	4885.4	3840.7	2718.7	1577.4	824.4	578.9	528.3	511.9	505.9	505.9
20°	5360.1	4799.1	3566.9	2211.3	1001.5	549.1	482.1	470.2	458.3	450.9	450.9
22.5°	5376.4	4721.7	3281.2	1693.4	630.9	444.9	424.1	412.2	397.3	386.9	385.4
25°	5392.8	4662.1	2989.5	1205.3	456.8	386.9	366.1	349.7	328.9	315.5	314.0
27.5°	5395.8	4587.7	2677.1	806.5	382.4	337.8	311.0	285.7	261.9	248.5	247.0
30°	5351.1	4462.7	2330.3	544.6	337.8	293.2	257.4	230.7	208.3	197.9	197.9
32.5°	5263.3	4308.0	1949.4	410.7	300.6	251.5	212.8	187.5	172.6	168.2	166.7
35°	5184.5	4141.3	1558.0	348.2	269.3	212.8	174.1	157.7	148.8	147.3	145.8
37.5°	5138.3	4007.4	1190.5	315.5	239.6	178.6	147.3	135.4	131.0	128.0	129.5
40°	5174.0	3895.8	879.5	288.7	209.8	148.8	125.0	119.0	114.6	113.1	113.1
42.5°	5330.3	3876.4	653.3	264.9	181.5	123.5	108.6	104.2	101.2	99.7	101.2
45°	5741.0	3995.5	507.4	242.6	153.3	104.2	92.3	90.8	89.3	89.3	89.3
47.5°	6358.6	4241.0	422.6	217.3	128.0	89.3	80.4	78.9	77.4	78.9	78.9
50°	7404.7	4690.4	378.0	192.0	105.7	75.9	68.5	68.5	68.5	68.5	69.9
52.5°	8995.4	5574.3	348.2	166.7	86.3	64.0	58.0	58.0	59.5	59.5	61.0
55°	10767.7	6746.9	321.4	141.4	72.9	53.6	47.6	49.1	50.6	52.1	52.1
57.5°	12690.3	8046.0	299.1	116.1	62.5	43.2	40.2	41.7	43.2	46.1	46.1
60°	15010.2	9452.3	266.4	90.8	52.1	34.2	31.2	34.2	38.7	41.7	43.2
62.5°	17557.8	10812.4	224.7	71.4	43.2	26.8	25.3	31.2	37.2	40.2	41.7
65°	19298.9	11239.5	172.6	58.0	32.7	19.3	20.8	28.3	35.7	40.2	40.2
67°	18593.5	10190.4	141.4	49.1	26.8	14.9	19.3	28.3	35.7	38.7	40.2
67.5°	18104.0	9779.7	135.4	47.6	25.3	14.9	19.3	28.3	35.7	40.2	40.2
70°	14730.5	7346.6	113.1	35.7	20.8	13.4	16.4	26.8	34.2	38.7	38.7
72.5°	10235.0	4529.7	101.2	25.3	17.9	11.9	14.9	25.3	32.7	37.2	38.7
75°	4866.0	1639.9	86.3	19.3	16.4	10.4	13.4	25.3	32.7	37.2	37.2
77.5°	992.5	380.9	69.9	16.4	13.4	10.4	11.9	23.8	31.2	35.7	35.7
80°	325.9	147.3	52.1	14.9	13.4	10.4	11.9	22.3	31.2	34.2	35.7
82.5°	235.1	74.4	34.2	14.9	13.4	10.4	10.4	22.3	29.8	34.2	34.2
85°	180.1	52.1	22.3	14.9	13.4	10.4	10.4	20.8	28.3	32.7	32.7
87.5°	119.0	20.8	17.9	14.9	13.4	10.4	10.4	20.8	26.8	31.2	32.7
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)