

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: P299689

Luminaire Tested: **GLNA-AF-10-LED-E1-SL2-7027-800-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299689
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-10-LED-E1-SL2-7027-800-HSS
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 2700K CCT 800mA 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: 31114.7 lumens
Efficiency: N/A
Efficacy: 74.3 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 419
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

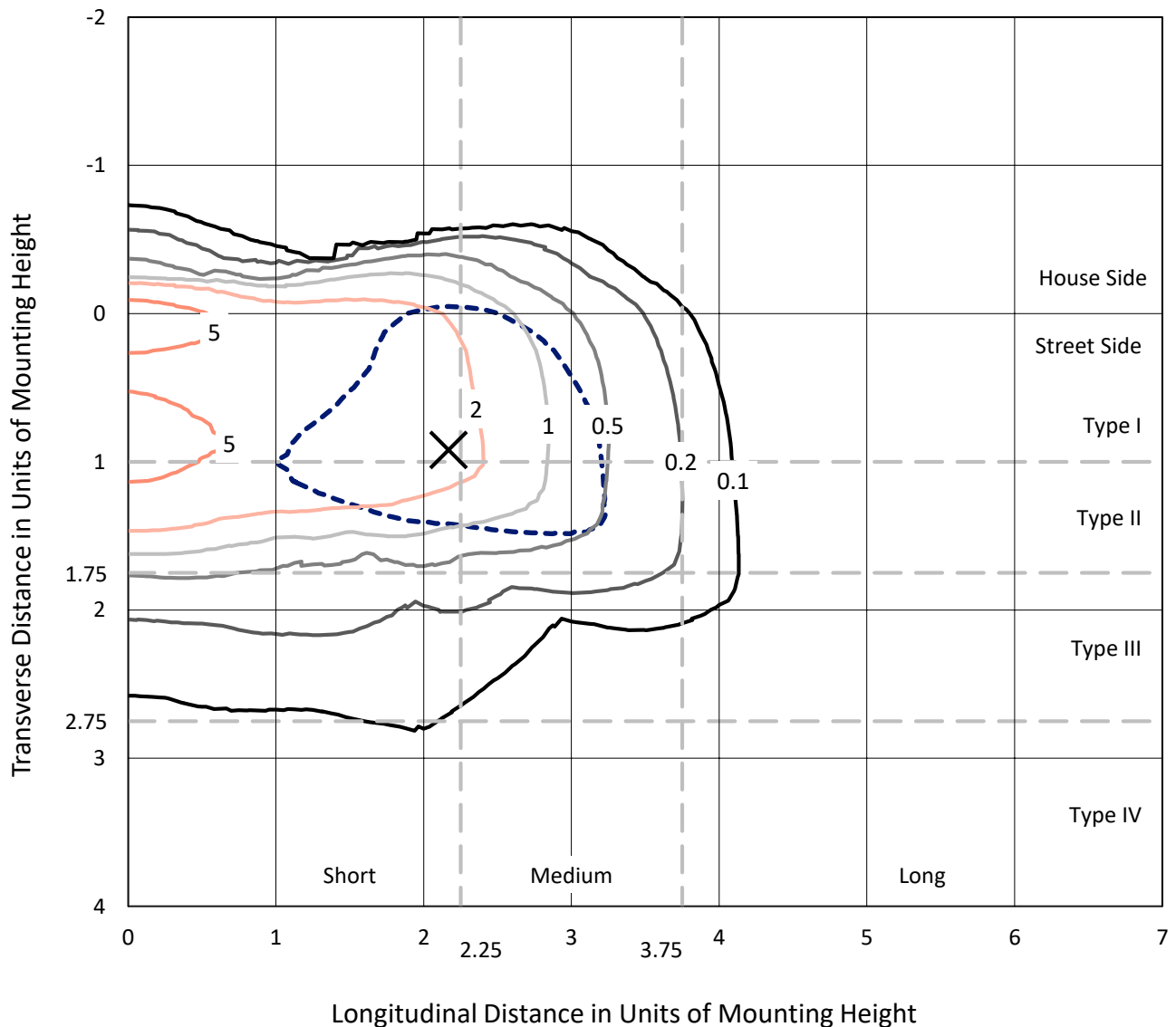


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

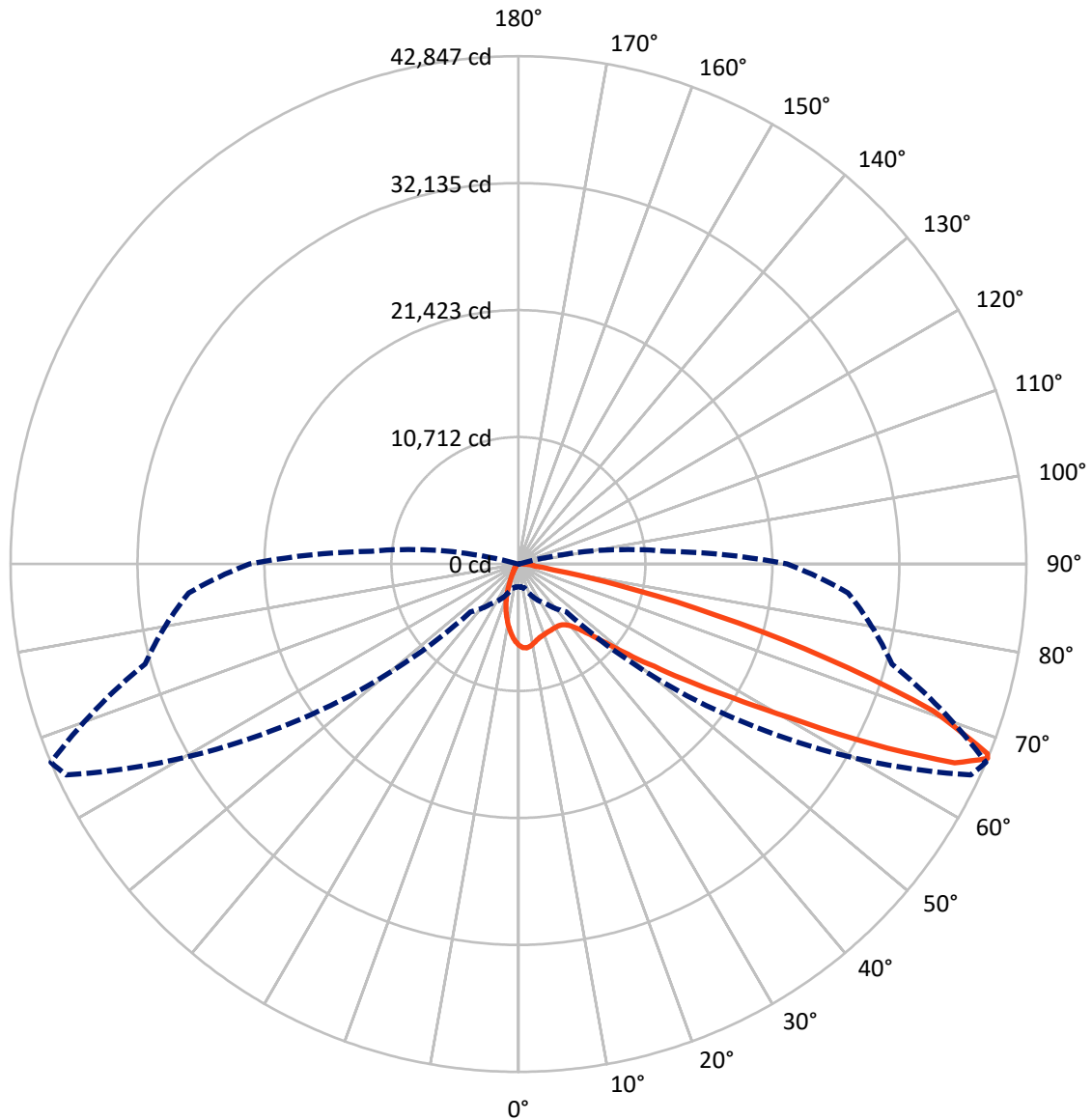


Based on 30 foot mounting height. Maximum calculated value = 7.6 fc
 Type II - Short - Semi-Cutoff

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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	3230.6	0.0	3230.6
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	27884.1	0.0	27884.1
	% Fixture	89.6	0.0	89.6
Total	Lumens	31114.7	0.0	31114.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	558.3	1.8
10°-20°	1188.4	3.8
20°-30°	1727.8	5.6
30°-40°	2695.4	8.7
40°-50°	4774.8	15.3
50°-60°	7555.7	24.3
60°-70°	8654.0	27.8
70°-80°	3589.6	11.5
80°-90°	370.8	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°	31114.7	100.0
0°-180°	31114.7	100.0



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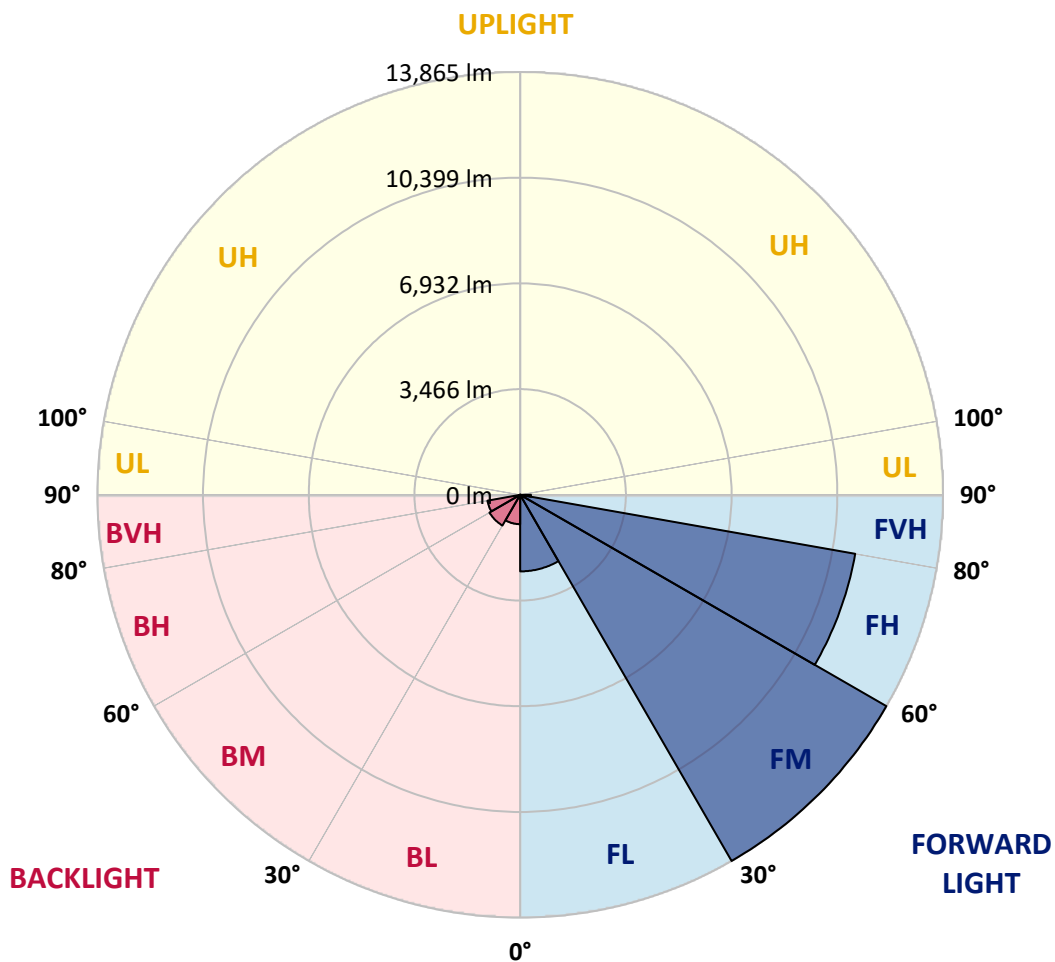
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2510.5	8.1			
FM (30°-60°)	13864.8	44.6			
FH (60°-80°)	11154.7	35.9			G4/12000
FVH (80°-90°)	354.1	1.1			G3/500
BL (0°-30°)	964.0	3.1	B2/1000		
BM (30°-60°)	1161.1	3.7	B2/2500		
BH (60°-80°)	1088.8	3.5	B3/2500		G3/2500
BVH (80°-90°)	16.7	0.1			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	6862.0	6862.0	6862.0	6862.0	6862.0	6862.0	6862.0	6862.0	6862.0	6862.0	6862.0
2.5°	7094.3	7108.8	7107.0	7117.8	7143.3	7145.1	7119.7	7070.7	7059.8	6996.3	6885.5
5°	6542.5	6584.3	6609.7	6713.1	6829.3	6969.0	7074.3	7112.4	7107.0	7061.6	6894.6
7.5°	5912.8	5954.5	5983.6	6105.2	6259.4	6499.0	6773.0	6998.1	7018.0	7067.0	6887.4
10°	5493.6	5500.8	5540.7	5656.9	5818.4	6063.4	6390.1	6783.9	6843.8	7023.5	6869.2
12.5°	5148.7	5154.2	5206.8	5332.0	5504.4	5751.3	6094.3	6549.8	6642.4	6969.0	6865.6
15°	4903.7	4923.7	4970.9	5101.5	5284.8	5529.9	5881.9	6377.4	6488.1	6949.1	6898.2
17.5°	4822.1	4843.8	4858.4	4952.7	5119.7	5359.3	5720.4	6264.9	6390.1	6960.0	6961.8
20°	4907.4	4923.7	4891.0	4914.6	5018.1	5232.2	5584.3	6168.7	6317.5	6972.7	7043.4
22.5°	5225.0	5232.2	5143.3	5039.8	5021.7	5139.7	5477.2	6092.5	6252.2	7007.1	7139.6
25°	5769.4	5756.7	5611.5	5388.3	5177.8	5123.3	5413.7	6045.3	6219.5	7043.4	7239.4
27.5°	6426.4	6444.5	6244.9	5920.0	5519.0	5232.2	5404.6	6025.3	6205.0	7068.8	7326.6
30°	7224.9	7250.3	7021.7	6613.3	6038.0	5500.8	5488.1	6021.7	6195.9	7052.5	7333.8
32.5°	8039.8	8070.6	7891.0	7469.9	6731.3	5950.9	5676.9	6061.6	6214.1	6996.3	7292.1
35°	8892.8	8936.3	8816.5	8455.4	7671.4	6600.6	6009.0	6183.2	6299.3	6990.8	7250.3
37.5°	10070.6	10110.5	9885.5	9502.6	8809.3	7471.7	6542.5	6411.9	6500.8	7077.9	7261.2
40°	11829.2	11823.8	11243.0	10656.8	10059.7	8578.8	7292.1	6825.7	6871.0	7341.1	7395.5
42.5°	13745.7	13736.6	12878.2	11987.1	11448.1	9941.8	8277.5	7540.7	7509.9	7825.6	7744.0
45°	15223.0	15221.2	14520.6	13517.0	13119.6	11506.2	9551.6	8535.2	8488.1	8613.3	8386.4
47.5°	15852.7	15863.6	15511.5	14805.6	14972.5	13622.3	11157.7	9976.2	9905.5	9854.6	9509.8
50°	15362.7	15384.5	15413.5	15275.6	16331.8	16466.1	13311.9	12007.1	11972.6	11745.7	11206.7
52.5°	13762.0	13872.7	14213.9	14651.3	16803.7	19195.7	16689.4	14529.7	14344.6	14103.2	13509.8
55°	11065.1	11186.7	11834.6	12896.3	16101.4	20988.8	21422.5	17781.9	17473.4	16752.9	15896.3
57.5°	7322.9	7511.7	8451.8	9802.0	14061.5	21277.3	26144.7	22295.4	21221.1	19248.3	18282.8
60°	4034.4	4215.9	5235.8	6459.1	10155.9	19850.8	29320.7	28171.9	26273.6	22037.7	21181.1
62.5°	2484.5	2582.5	3335.7	4473.6	6090.6	15667.6	29977.7	35556.6	33358.8	25629.3	24682.0
65°	1978.2	2019.9	2388.3	3656.9	4366.5	9319.3	27856.2	41186.2	40453.0	29977.7	27816.2
67°	1920.1	1936.4	2110.7	3139.7	4116.1	5713.2	23337.2	42102.7	42846.8	32609.2	27914.2
67.5°	1932.8	1951.0	2116.1	2996.3	4108.8	5250.4	21780.0	41741.6	42681.7	32818.0	27480.5
70°	1863.9	1920.1	2422.8	2994.5	3907.4	4362.9	13043.3	36166.4	37144.6	30493.1	23317.2
72.5°	660.6	664.2	1047.2	2422.8	4248.6	4410.1	6549.8	26513.2	27237.3	23326.3	16811.0
75°	392.0	333.9	348.5	689.6	4059.8	4283.0	3778.5	16941.6	17212.0	13366.4	8513.5
77.5°	270.4	235.9	243.2	304.9	1546.3	4223.2	3001.8	8834.7	8546.1	4687.8	1813.0
80°	154.3	136.1	145.2	266.8	562.6	3940.0	2831.2	3582.5	3054.4	794.9	500.9
82.5°	81.7	69.0	83.5	219.6	392.0	2455.5	2836.6	1731.4	1372.0	268.6	341.2
85°	29.0	23.6	39.9	150.6	261.3	753.2	2629.7	1455.5	1143.4	130.7	259.5
87.5°	5.4	5.4	16.3	61.7	105.3	230.5	1555.3	863.9	578.9	78.0	177.9
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°	6862.0	6862.0	6862.0	6862.0	6862.0	6862.0	6862.0	6862.0	6862.0	6862.0	6862.0
2.5°	6840.2	6762.1	6656.9	6528.0	6375.6	6241.3	6141.5	6038.0	6016.2	5979.9	5974.5
5°	6794.8	6660.5	6399.2	6099.7	5780.3	5491.7	5257.6	5048.9	4956.4	4876.5	4867.4
7.5°	6727.7	6526.2	6081.6	5598.8	5099.7	4646.0	4261.3	3989.0	3738.6	3618.8	3600.7
10°	6649.6	6361.1	5724.0	5054.4	4364.7	3724.1	3152.4	2673.3	2382.9	2210.5	2188.7
12.5°	6577.0	6199.5	5359.3	4489.9	3573.4	2716.8	1981.8	1524.5	1219.6	1096.2	1081.7
15°	6542.5	6068.9	5018.1	3912.8	2745.9	1729.6	1083.5	838.5	738.6	709.6	707.8
17.5°	6538.9	5958.2	4684.1	3315.7	1923.7	1005.4	706.0	644.3	624.3	617.0	617.0
20°	6537.1	5852.9	4350.2	2696.9	1221.4	669.7	588.0	573.5	559.0	549.9	549.9
22.5°	6557.1	5758.5	4001.7	2065.3	769.5	542.6	517.2	502.7	484.6	471.9	470.0
25°	6577.0	5685.9	3646.0	1470.0	557.2	471.9	446.5	426.5	401.1	384.7	382.9
27.5°	6580.7	5595.2	3264.9	983.6	466.4	412.0	379.3	348.5	319.4	303.1	301.3
30°	6526.2	5442.7	2842.1	664.2	412.0	357.5	314.0	281.3	254.1	241.4	241.4
32.5°	6419.1	5254.0	2377.5	500.9	366.6	306.7	259.5	228.7	210.5	205.1	203.3
35°	6322.9	5050.7	1900.1	424.7	328.5	259.5	212.3	192.4	181.5	179.7	177.9
37.5°	6266.7	4887.4	1451.9	384.7	292.2	217.8	179.7	165.2	159.7	156.1	157.9
40°	6310.2	4751.3	1072.6	352.1	255.9	181.5	152.4	145.2	139.7	137.9	137.9
42.5°	6500.8	4727.7	796.7	323.0	221.4	150.6	132.5	127.0	123.4	121.6	123.4
45°	7001.7	4872.9	618.9	295.8	186.9	127.0	112.5	110.7	108.9	108.9	108.9
47.5°	7754.9	5172.3	515.4	265.0	156.1	108.9	98.0	96.2	94.4	96.2	96.2
50°	9030.7	5720.4	461.0	234.1	128.9	92.6	83.5	83.5	83.5	83.5	85.3
52.5°	10970.8	6798.4	424.7	203.3	105.3	78.0	70.8	70.8	72.6	72.6	74.4
55°	13132.3	8228.5	392.0	172.4	88.9	65.3	58.1	59.9	61.7	63.5	63.5
57.5°	15477.1	9812.9	364.8	141.6	76.2	52.6	49.0	50.8	52.6	56.3	56.3
60°	18306.4	11527.9	324.9	110.7	63.5	41.7	38.1	41.7	47.2	50.8	52.6
62.5°	21413.4	13186.7	274.0	87.1	52.6	32.7	30.9	38.1	45.4	49.0	50.8
65°	23536.8	13707.6	210.5	70.8	39.9	23.6	25.4	34.5	43.6	49.0	49.0
67°	22676.6	12428.1	172.4	59.9	32.7	18.1	23.6	34.5	43.6	47.2	49.0
67.5°	22079.5	11927.2	165.2	58.1	30.9	18.1	23.6	34.5	43.6	49.0	49.0
70°	17965.2	8959.9	137.9	43.6	25.4	16.3	20.0	32.7	41.7	47.2	47.2
72.5°	12482.5	5524.4	123.4	30.9	21.8	14.5	18.1	30.9	39.9	45.4	47.2
75°	5934.6	2000.0	105.3	23.6	20.0	12.7	16.3	30.9	39.9	45.4	45.4
77.5°	1210.5	464.6	85.3	20.0	16.3	12.7	14.5	29.0	38.1	43.6	43.6
80°	397.5	179.7	63.5	18.1	16.3	12.7	14.5	27.2	38.1	41.7	43.6
82.5°	286.7	90.7	41.7	18.1	16.3	12.7	12.7	27.2	36.3	41.7	41.7
85°	219.6	63.5	27.2	18.1	16.3	12.7	12.7	25.4	34.5	39.9	39.9
87.5°	145.2	25.4	21.8	18.1	16.3	12.7	12.7	25.4	32.7	38.1	39.9
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)