

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: P299752

Luminaire Tested: **GLNA-AF-10-LED-E1-SL2-600-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299752
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-SL2-600-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 4000K 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: 29201.8 lumens
Efficiency: N/A
Efficacy: 90.4 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): 323
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

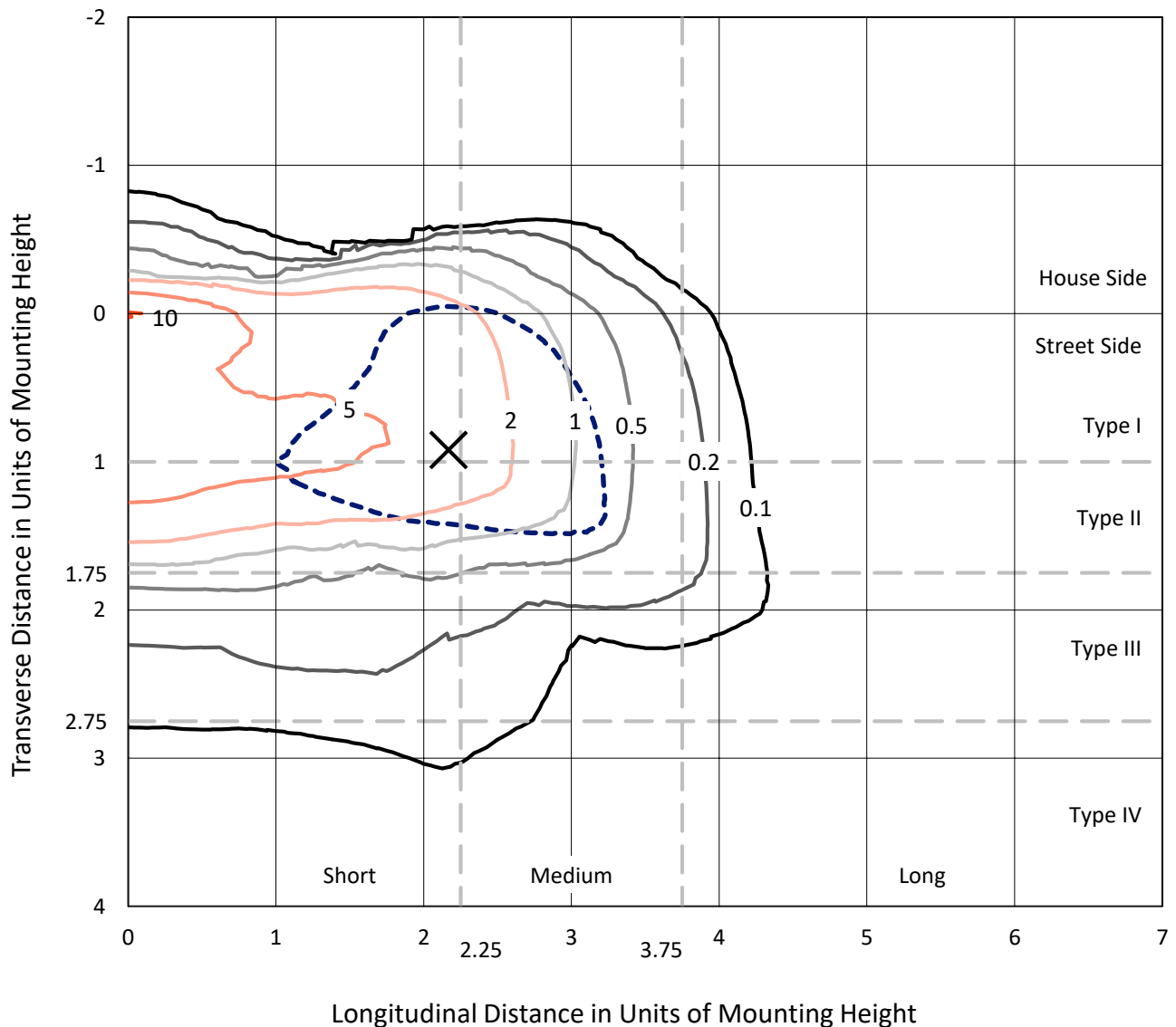


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

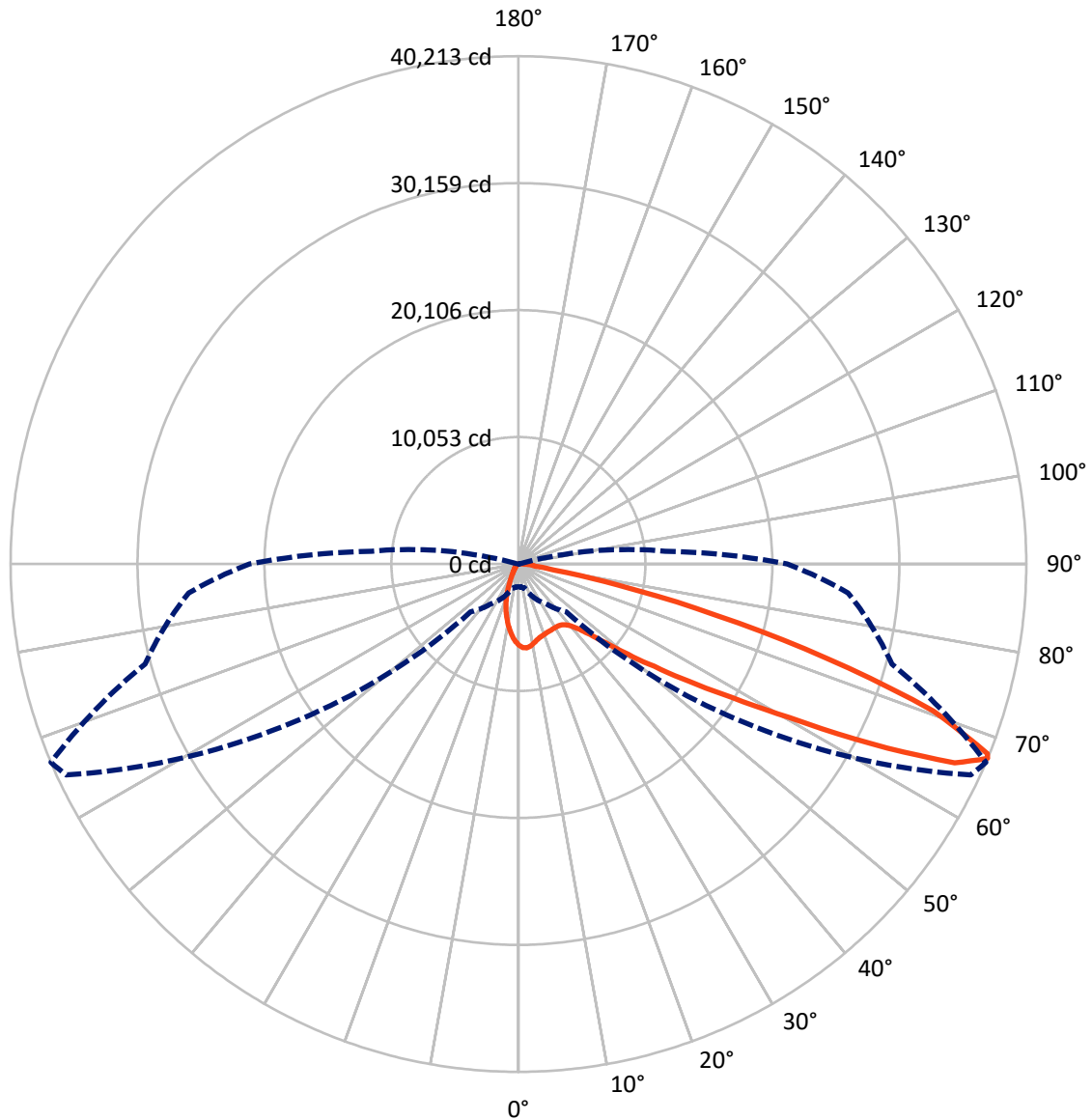


Based on 25 foot mounting height. Maximum calculated value = 10.3 fc
 Type II - Short - Semi-Cutoff

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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	3032.0	0.0	3032.0
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	26169.8	0.0	26169.8
	% Fixture	89.6	0.0	89.6
Total	Lumens	29201.8	0.0	29201.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	524.0	1.8
10°-20°	1115.3	3.8
20°-30°	1621.6	5.6
30°-40°	2529.7	8.7
40°-50°	4481.2	15.3
50°-60°	7091.1	24.3
60°-70°	8121.9	27.8
70°-80°	3368.9	11.5
80°-90°	348.0	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°	29201.8	100.0
0°-180°	29201.8	100.0



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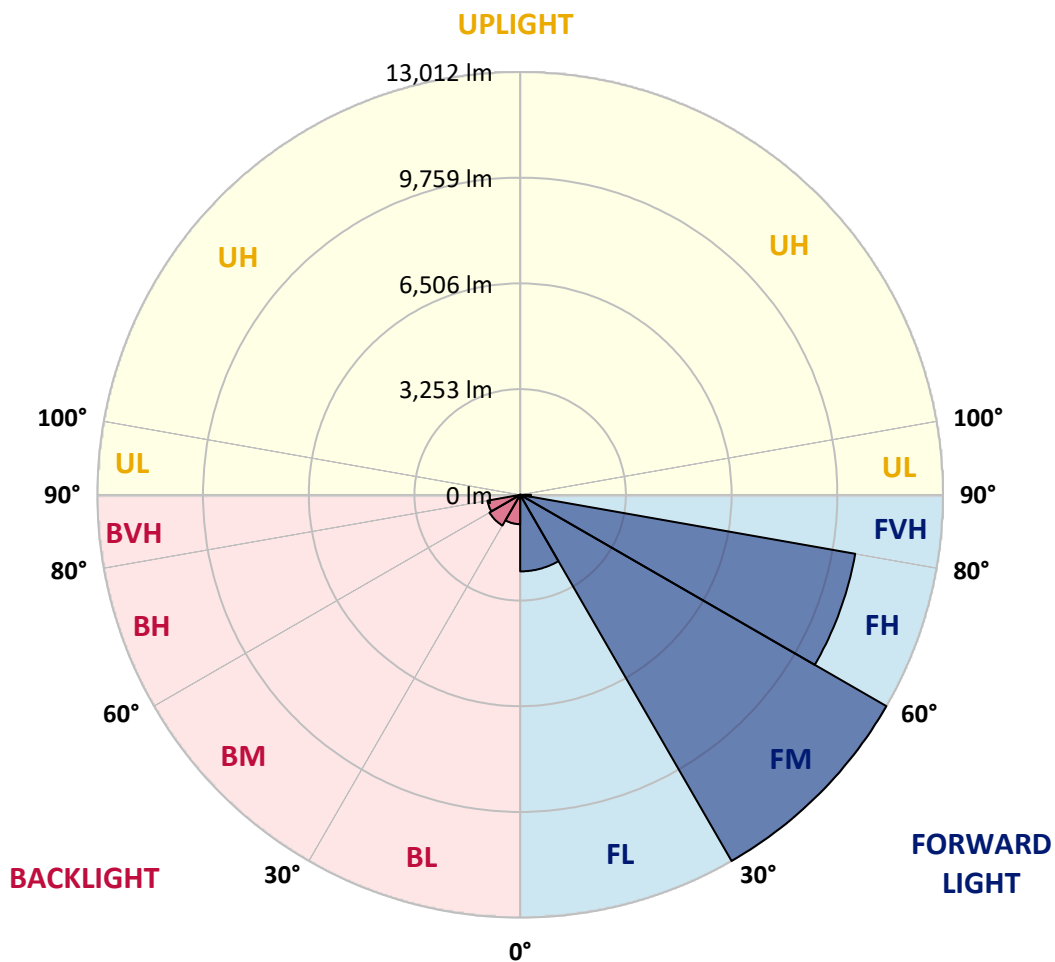
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2356.1	8.1			
FM	(30°-60°)	13012.4	44.6			
FH	(60°-80°)	10468.9	35.9			G4/12000
FVH	(80°-90°)	332.3	1.1			G3/500
BL	(0°-30°)	904.8	3.1	B2/1000		
BM	(30°-60°)	1089.7	3.7	B2/2500		
BH	(60°-80°)	1021.9	3.5	B3/2500		G3/2500
BVH	(80°-90°)	15.7	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°	6440.1	6440.1	6440.1	6440.1	6440.1	6440.1	6440.1	6440.1	6440.1	6440.1	6440.1
2.5°	6658.1	6671.7	6670.0	6680.2	6704.1	6705.8	6681.9	6636.0	6625.7	6566.1	6462.2
5°	6140.3	6179.5	6203.3	6300.4	6409.4	6540.6	6639.4	6675.1	6670.0	6627.4	6470.7
7.5°	5549.3	5588.4	5615.7	5729.8	5874.6	6099.4	6356.6	6567.8	6586.6	6632.5	6463.9
10°	5155.8	5162.6	5200.1	5309.1	5460.7	5690.6	5997.2	6366.8	6423.0	6591.7	6446.9
12.5°	4832.2	4837.3	4886.7	5004.2	5166.0	5397.7	5719.6	6147.1	6234.0	6540.6	6443.5
15°	4602.2	4621.0	4665.3	4787.9	4959.9	5189.9	5520.3	5985.3	6089.2	6521.8	6474.1
17.5°	4525.6	4546.0	4559.7	4648.2	4804.9	5029.8	5368.7	5879.7	5997.2	6532.1	6533.8
20°	4605.7	4621.0	4590.3	4612.5	4709.5	4910.5	5241.0	5789.4	5929.1	6544.0	6610.4
22.5°	4903.7	4910.5	4827.1	4730.0	4713.0	4823.7	5140.5	5717.9	5867.8	6576.3	6700.7
25°	5414.7	5402.8	5266.5	5057.0	4859.4	4808.3	5080.9	5673.6	5837.1	6610.4	6794.4
27.5°	6031.3	6048.3	5861.0	5556.1	5179.7	4910.5	5072.3	5654.9	5823.5	6634.2	6876.1
30°	6780.7	6804.6	6590.0	6206.7	5666.8	5162.6	5150.7	5651.5	5815.0	6618.9	6882.9
32.5°	7545.5	7574.5	7405.8	7010.7	6317.4	5585.0	5327.8	5688.9	5832.0	6566.1	6843.8
35°	8346.0	8386.9	8274.5	7935.5	7199.7	6194.8	5639.5	5803.1	5912.1	6561.0	6804.6
37.5°	9451.5	9488.9	9277.7	8918.3	8267.7	7012.4	6140.3	6017.7	6101.1	6642.8	6814.8
40°	11101.9	11096.8	10551.8	10001.6	9441.2	8051.4	6843.8	6406.0	6448.6	6889.7	6940.8
42.5°	12900.6	12892.1	12086.4	11250.1	10744.2	9330.5	7768.6	7077.1	7048.1	7344.5	7267.9
45°	14287.1	14285.4	13627.9	12686.0	12313.0	10798.8	8964.3	8010.5	7966.2	8083.7	7870.8
47.5°	14878.1	14888.3	14557.9	13895.3	14052.0	12784.8	10471.7	9362.9	9296.5	9248.8	8925.2
50°	14418.2	14438.6	14465.9	14336.4	15327.8	15453.8	12493.5	11268.9	11236.5	11023.6	10517.7
52.5°	12915.9	13019.8	13340.0	13750.5	15770.6	18015.5	15663.3	13636.4	13462.7	13236.1	12679.2
55°	10384.9	10499.0	11107.0	12103.5	15111.4	19698.4	20105.4	16688.7	16399.1	15722.9	14919.0
57.5°	6872.7	7049.8	7932.1	9199.4	13197.0	19969.2	24537.3	20924.7	19916.4	18064.9	17158.8
60°	3786.4	3956.7	4913.9	6061.9	9531.5	18630.4	27518.1	26439.9	24658.3	20682.8	19878.9
62.5°	2331.8	2423.8	3130.6	4198.6	5716.2	14704.4	28134.7	33370.5	31307.9	24053.6	23164.5
65°	1856.6	1895.7	2241.5	3432.1	4098.1	8746.3	26143.5	38654.1	37966.0	28134.7	26106.1
67°	1802.1	1817.4	1980.9	2946.7	3863.0	5361.9	21902.4	39514.2	40212.6	30604.4	26198.0
67.5°	1814.0	1831.0	1986.0	2812.1	3856.2	4927.6	20441.0	39175.3	40057.6	30800.3	25791.0
70°	1749.3	1802.1	2273.9	2810.4	3667.1	4094.7	12241.4	33942.8	34860.9	28618.4	21883.7
72.5°	620.0	623.4	982.8	2273.9	3987.4	4139.0	6147.1	24883.1	25562.7	21892.2	15777.4
75°	367.9	313.4	327.0	647.2	3810.2	4019.7	3546.2	15900.1	16153.8	12544.6	7990.1
77.5°	253.8	221.4	228.2	286.1	1451.2	3963.5	2817.2	8291.5	8020.7	4399.6	1701.6
80°	144.8	127.7	136.3	250.4	528.0	3697.8	2657.1	3362.3	2866.6	746.0	470.1
82.5°	76.6	64.7	78.4	206.1	367.9	2304.5	2662.2	1624.9	1287.7	252.1	320.2
85°	27.3	22.1	37.5	141.4	245.3	706.9	2468.0	1366.0	1073.1	122.6	243.6
87.5°	5.1	5.1	15.3	57.9	98.8	216.3	1459.7	810.8	543.3	73.2	166.9
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°	6440.1	6440.1	6440.1	6440.1	6440.1	6440.1	6440.1	6440.1	6440.1	6440.1	6440.1
2.5°	6419.6	6346.4	6247.6	6126.7	5983.6	5857.6	5763.9	5666.8	5646.3	5612.3	5607.2
5°	6377.1	6251.0	6005.7	5724.7	5424.9	5154.1	4934.4	4738.5	4651.6	4576.7	4568.2
7.5°	6314.0	6125.0	5707.7	5254.6	4786.2	4360.4	3999.3	3743.8	3508.7	3396.3	3379.3
10°	6240.8	5970.0	5372.1	4743.6	4096.4	3495.1	2958.6	2508.9	2236.4	2074.6	2054.1
12.5°	6172.7	5818.4	5029.8	4213.9	3353.7	2549.8	1860.0	1430.7	1144.6	1028.8	1015.2
15°	6140.3	5695.7	4709.5	3672.3	2577.1	1623.2	1016.9	786.9	693.2	666.0	664.3
17.5°	6136.9	5591.8	4396.1	3111.9	1805.5	943.6	662.6	604.7	585.9	579.1	579.1
20°	6135.2	5493.1	4082.7	2531.1	1146.3	628.5	551.9	538.2	524.6	516.1	516.1
22.5°	6153.9	5404.5	3755.7	1938.3	722.2	509.3	485.4	471.8	454.8	442.9	441.1
25°	6172.7	5336.4	3421.9	1379.7	522.9	442.9	419.0	400.3	376.4	361.1	359.4
27.5°	6176.1	5251.2	3064.2	923.2	437.7	386.6	356.0	327.0	299.8	284.4	282.7
30°	6125.0	5108.1	2667.3	623.4	386.6	335.5	294.7	264.0	238.5	226.5	226.5
32.5°	6024.5	4931.0	2231.3	470.1	344.1	287.9	243.6	214.6	197.6	192.5	190.8
35°	5934.2	4740.2	1783.3	398.6	308.3	243.6	199.3	180.5	170.3	168.6	166.9
37.5°	5881.4	4586.9	1362.6	361.1	274.2	204.4	168.6	155.0	149.9	146.5	148.2
40°	5922.3	4459.2	1006.6	330.4	240.2	170.3	143.1	136.3	131.2	129.4	129.4
42.5°	6101.1	4437.0	747.7	303.2	207.8	141.4	124.3	119.2	115.8	114.1	115.8
45°	6571.2	4573.3	580.8	277.6	175.4	119.2	105.6	103.9	102.2	102.2	102.2
47.5°	7278.1	4854.3	483.7	248.7	146.5	102.2	92.0	90.3	88.6	90.3	90.3
50°	8475.5	5368.7	432.6	219.7	120.9	86.9	78.4	78.4	78.4	78.4	80.1
52.5°	10296.3	6380.5	398.6	190.8	98.8	73.2	66.4	66.4	68.1	68.1	69.8
55°	12324.9	7722.6	367.9	161.8	83.5	61.3	54.5	56.2	57.9	59.6	59.6
57.5°	14525.5	9209.6	342.4	132.9	71.5	49.4	46.0	47.7	49.4	52.8	52.8
60°	17180.9	10819.2	304.9	103.9	59.6	39.2	35.8	39.2	44.3	47.7	49.4
62.5°	20096.9	12376.0	257.2	81.8	49.4	30.7	29.0	35.8	42.6	46.0	47.7
65°	22089.7	12864.8	197.6	66.4	37.5	22.1	23.8	32.4	40.9	46.0	46.0
67°	21282.4	11664.0	161.8	56.2	30.7	17.0	22.1	32.4	40.9	44.3	46.0
67.5°	20722.0	11193.9	155.0	54.5	29.0	17.0	22.1	32.4	40.9	46.0	46.0
70°	16860.7	8409.1	129.4	40.9	23.8	15.3	18.7	30.7	39.2	44.3	44.3
72.5°	11715.1	5184.8	115.8	29.0	20.4	13.6	17.0	29.0	37.5	42.6	44.3
75°	5569.7	1877.0	98.8	22.1	18.7	11.9	15.3	29.0	37.5	42.6	42.6
77.5°	1136.1	436.0	80.1	18.7	15.3	11.9	13.6	27.3	35.8	40.9	40.9
80°	373.0	168.6	59.6	17.0	15.3	11.9	13.6	25.5	35.8	39.2	40.9
82.5°	269.1	85.2	39.2	17.0	15.3	11.9	11.9	25.5	34.1	39.2	39.2
85°	206.1	59.6	25.5	17.0	15.3	11.9	11.9	23.8	32.4	37.5	37.5
87.5°	136.3	23.8	20.4	17.0	15.3	11.9	11.9	23.8	30.7	35.8	37.5
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)