

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: P301965

Luminaire Tested: **GLNA-AF-08-LED-E1-SL4-600-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301965
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-SL4-600-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(8) 70 CRI, 4000K CCT 600mA 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: 23174.3 lumens
Efficiency: N/A
Efficacy: 90.2 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G4

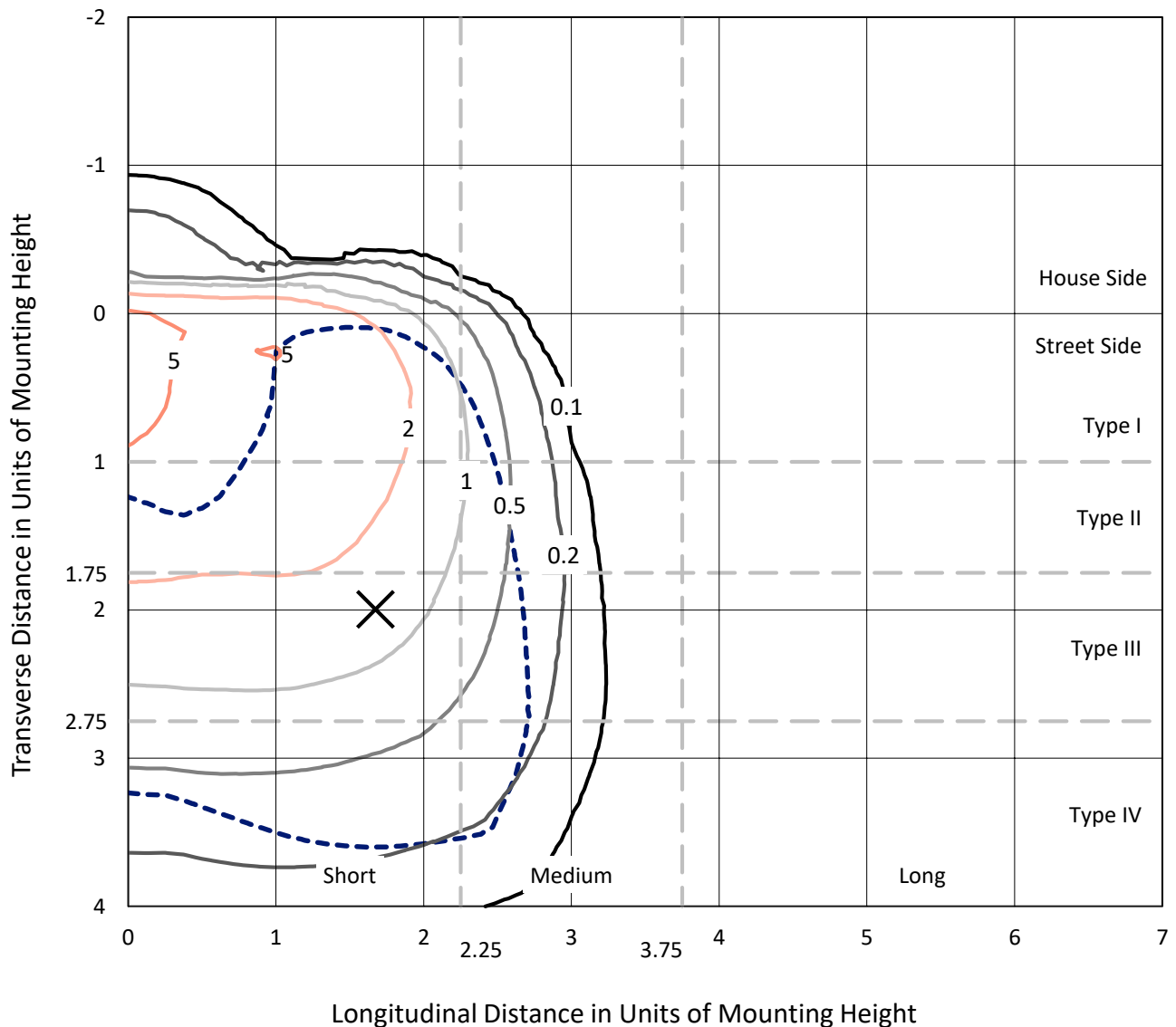
Input Watts (W): 257
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

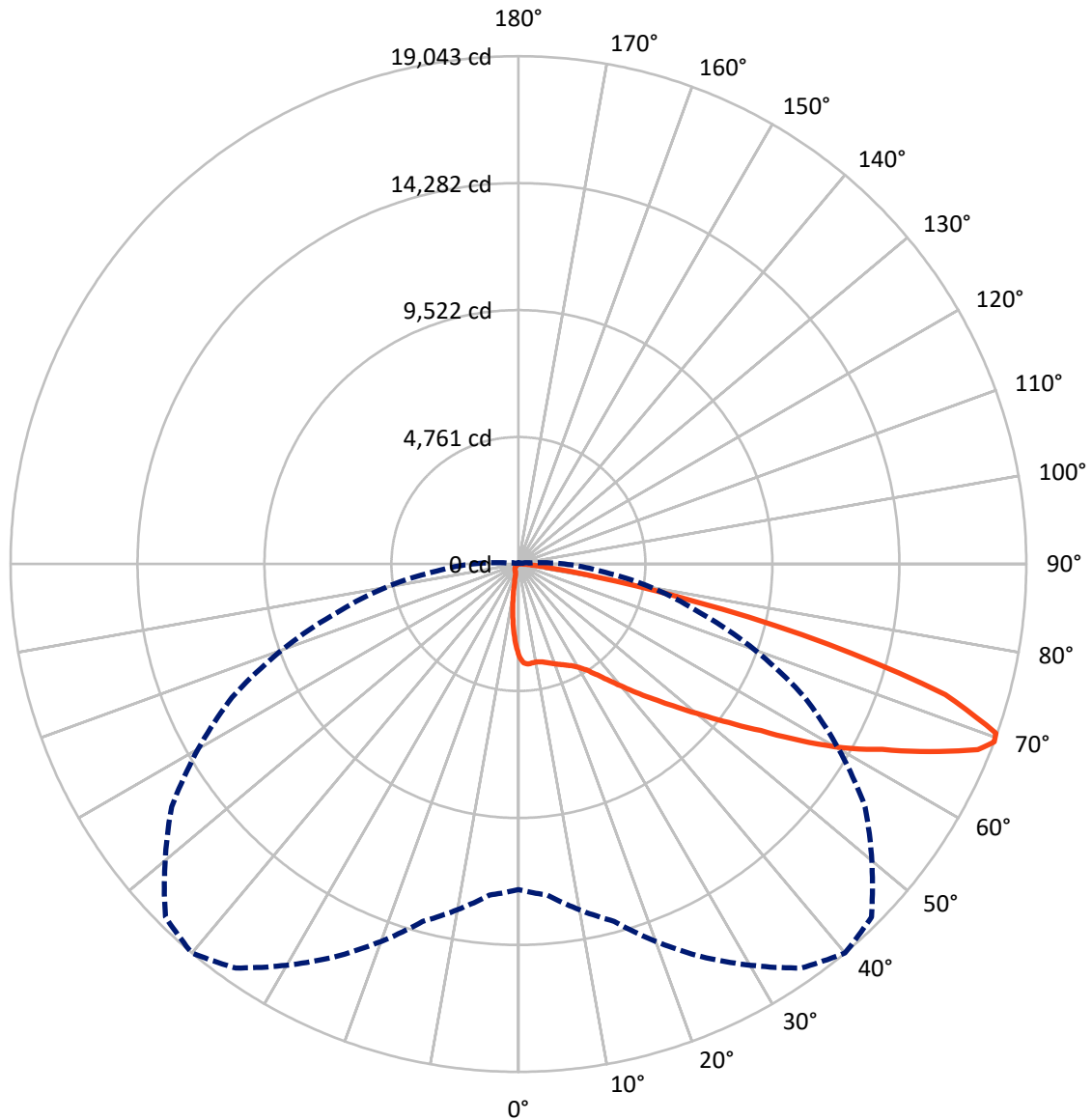


Based on 25 foot mounting height. Maximum calculated value = 6.1 fc
 Type IV - Short - Semi-Cutoff

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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	1355.8	0.0	1355.8
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	21818.5	0.0	21818.5
	% Fixture	94.1	0.0	94.1
Total	Lumens	23174.3	0.0	23174.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	280.7	1.2
10°-20°	690.4	3.0
20°-30°	1162.8	5.0
30°-40°	1903.6	8.2
40°-50°	3295.9	14.2
50°-60°	5191.4	22.4
60°-70°	6779.8	29.3
70°-80°	3491.9	15.1
80°-90°	377.7	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°	23174.3	100.0
0°-180°	23174.3	100.0

Coefficient of Utilization



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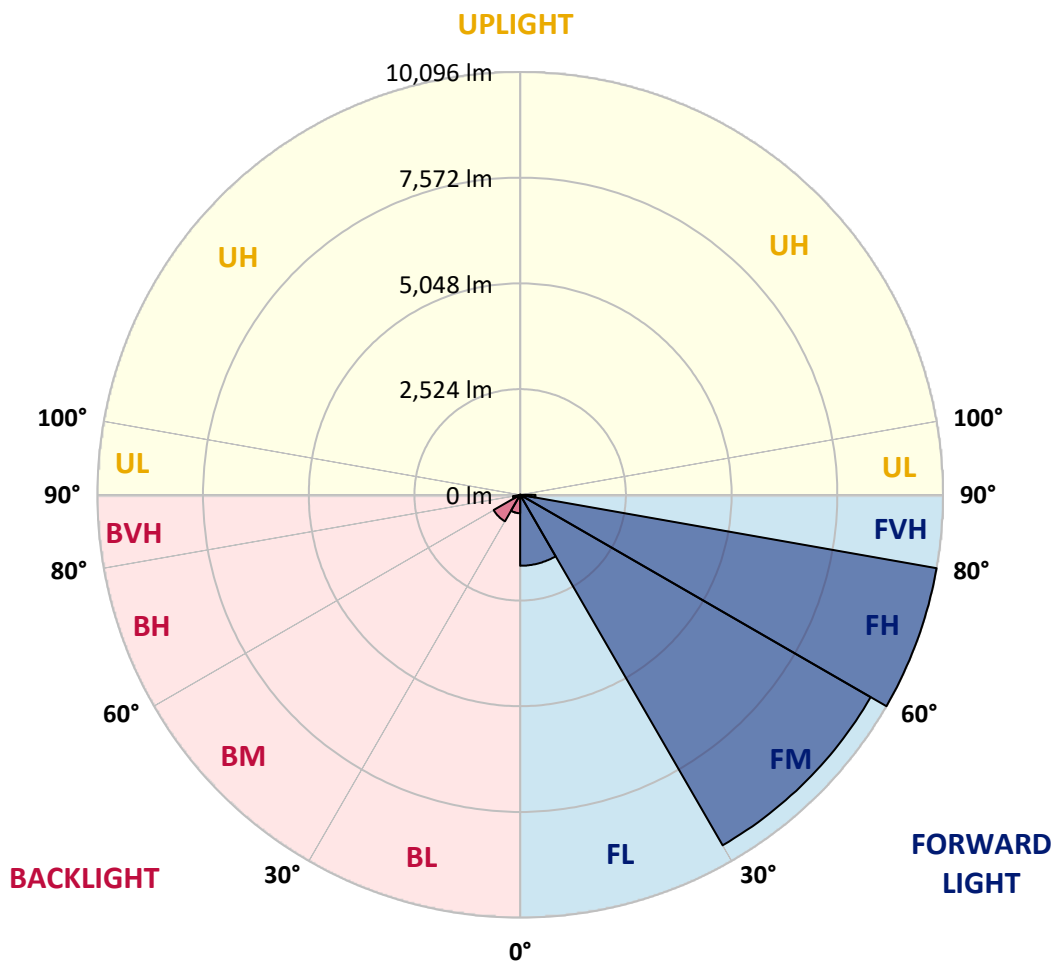
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1694.7	7.3			
FM	(30°-60°)	9662.2	41.7			
FH	(60°-80°)	10095.7	43.6			G4/12000
FVH	(80°-90°)	365.9	1.6			G3/500
BL	(0°-30°)	439.2	1.9	B1/500		
BM	(30°-60°)	728.7	3.1	B1/1000		
BH	(60°-80°)	176.1	0.8	B1/500		G1/500
BVH	(80°-90°)	11.9	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	3462.4	3462.4	3462.4	3462.4	3462.4	3462.4	3462.4	3462.4	3462.4	3462.4	3462.4
2.5°	3801.7	3781.0	3768.6	3752.0	3731.3	3713.4	3706.5	3655.5	3607.2	3541.0	3465.1
5°	3872.0	3865.1	3843.1	3821.0	3796.2	3768.6	3753.4	3692.7	3623.7	3527.2	3394.8
7.5°	3878.9	3870.7	3843.1	3812.7	3778.2	3745.1	3718.9	3658.2	3594.8	3496.8	3335.4
10°	3867.9	3858.3	3837.6	3804.5	3761.7	3730.0	3703.8	3645.8	3592.0	3503.7	3324.4
12.5°	3855.5	3845.8	3836.2	3819.6	3782.4	3760.3	3738.2	3683.1	3634.8	3560.3	3364.4
15°	3867.9	3862.4	3873.4	3866.5	3845.8	3826.5	3804.5	3754.8	3710.7	3648.6	3437.5
17.5°	3920.3	3920.3	3954.8	3958.9	3939.6	3912.0	3880.3	3830.7	3793.4	3741.0	3524.4
20°	4043.1	4039.0	4083.1	4091.4	4044.5	4001.7	3954.8	3894.1	3865.1	3832.0	3610.0
22.5°	4254.1	4234.8	4261.0	4252.8	4160.3	4094.1	4036.2	3961.7	3946.5	3931.4	3705.1
25°	4528.7	4517.6	4535.5	4454.2	4291.4	4201.7	4132.8	4048.6	4048.6	4063.8	3812.7
27.5°	4927.3	4885.9	4825.2	4681.8	4437.6	4323.1	4248.6	4159.0	4182.4	4239.0	3954.8
30°	5335.6	5290.1	5150.8	4930.1	4615.6	4495.5	4408.6	4314.8	4370.0	4473.5	4145.2
32.5°	5738.4	5687.4	5490.1	5211.5	4870.7	4750.7	4666.6	4563.1	4655.6	4829.4	4423.8
35°	6128.8	6083.3	5855.7	5527.4	5210.1	5110.8	5033.5	4943.9	5062.5	5305.3	4817.0
37.5°	6567.4	6517.8	6240.5	5884.6	5622.5	5550.8	5494.2	5404.6	5611.5	5967.4	5364.6
40°	7106.8	7022.7	6648.8	6294.3	6099.8	6065.3	6026.7	6014.3	6335.7	6828.2	6094.3
42.5°	7724.8	7586.8	7076.4	6726.1	6624.0	6648.8	6639.2	6694.3	7242.0	7898.6	6982.6
45°	8342.8	8164.8	7552.4	7186.8	7200.6	7287.5	7341.3	7562.0	8377.2	9126.3	7938.6
47.5°	8866.9	8691.8	8008.9	7684.8	7850.3	8021.4	8167.6	8585.5	9544.2	10334.7	8682.1
50°	9315.3	9149.7	8493.1	8232.4	8604.9	8880.7	9118.0	9737.4	10799.5	11254.7	9203.5
52.5°	9682.2	9571.8	8995.2	8860.0	9467.0	9871.2	10218.8	10960.9	11911.3	12002.4	9609.1
55°	10039.5	9960.8	9534.6	9606.3	10479.5	11029.9	11469.9	12258.9	12868.7	12625.9	9998.1
57.5°	10450.5	10378.8	10149.8	10552.6	11810.6	12503.1	12983.1	13409.4	13711.5	13263.2	10365.0
60°	10869.9	10828.5	10834.0	11603.7	13339.0	14003.9	14268.8	14379.1	14539.1	13863.2	10385.7
62.5°	11269.9	11348.5	11616.1	12773.5	14802.6	15313.0	15446.8	15555.8	15368.2	13958.4	9595.3
65°	11947.2	12075.5	12714.2	14339.1	16412.4	16958.6	17096.6	16722.8	15499.2	12728.0	7804.8
67.5°	12278.3	12512.8	13652.2	15798.6	17973.9	18580.9	18529.8	16798.6	13908.7	9705.6	5008.7
69°	12209.3	12459.0	13868.7	16245.5	18492.6	19043.0	18718.8	15870.3	11849.3	7030.9	3074.7
70°	11936.2	12188.6	13757.0	16228.9	18558.8	18994.7	18368.4	14724.0	10018.8	5141.1	1922.9
72.5°	9967.7	10185.7	12213.4	14668.8	17096.6	16742.1	15366.8	10200.8	4881.8	1400.1	433.1
75°	6135.7	6257.1	8763.5	11050.6	12912.8	12002.4	10238.1	5074.9	1455.3	395.9	240.0
77.5°	3241.6	3296.8	4797.6	6513.6	8185.5	6773.0	5247.3	1979.5	670.4	248.3	173.8
80°	1916.0	1957.4	2583.7	2978.2	3542.4	2958.9	2098.1	1215.3	480.0	155.9	154.5
82.5°	1096.6	1122.9	1873.3	1655.3	1396.0	1191.8	1044.2	1151.8	288.3	104.8	160.0
85°	402.8	408.3	1053.9	1259.4	830.4	493.8	518.7	954.6	77.2	66.2	125.5
87.5°	187.6	183.5	542.1	771.1	485.6	313.1	404.2	209.7	30.3	42.8	34.5
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°	3462.4	3462.4	3462.4	3462.4	3462.4	3462.4	3462.4	3462.4	3462.4	3462.4	3462.4
2.5°	3421.0	3369.9	3277.5	3182.3	3085.8	3011.3	2938.2	2880.2	2860.9	2825.1	2827.8
5°	3316.1	3222.3	3029.2	2833.3	2629.2	2460.9	2302.3	2174.0	2111.9	2048.4	2048.4
7.5°	3225.1	3088.5	2786.4	2467.8	2138.1	1860.8	1611.2	1423.6	1320.1	1237.3	1236.0
10°	3190.6	3005.8	2583.7	2127.1	1667.7	1289.8	993.2	802.8	704.9	641.4	638.7
12.5°	3205.8	2976.8	2427.8	1812.6	1236.0	829.0	575.2	452.5	411.1	391.8	391.8
15°	3249.9	2968.5	2271.9	1505.0	873.2	518.7	382.1	349.0	346.2	346.2	346.2
17.5°	3303.7	2971.3	2111.9	1205.6	594.5	371.1	329.7	325.5	328.3	328.3	328.3
20°	3358.9	2972.7	1939.5	928.4	419.3	322.8	310.4	309.0	311.8	311.8	313.1
22.5°	3426.5	2979.6	1767.0	693.9	346.2	304.9	295.2	295.2	296.6	296.6	295.2
25°	3503.7	2993.4	1587.7	514.5	315.9	292.4	284.2	282.8	284.2	282.8	281.4
27.5°	3600.3	3012.7	1387.7	402.8	302.1	280.0	273.1	273.1	271.7	270.4	269.0
30°	3721.7	3034.7	1162.9	342.1	288.3	269.0	262.1	260.7	259.3	256.6	256.6
32.5°	3906.5	3083.0	940.8	310.4	273.1	253.8	248.3	248.3	245.5	242.8	241.4
35°	4190.7	3178.2	742.1	291.1	256.6	237.3	230.4	230.4	227.6	226.2	224.8
37.5°	4583.8	3323.0	576.6	273.1	240.0	219.3	212.4	211.1	208.3	205.5	204.2
40°	5106.6	3502.4	453.8	256.6	223.5	201.4	195.9	193.1	187.6	183.5	183.5
42.5°	5763.2	3706.5	368.3	238.6	204.2	184.8	180.7	176.6	166.9	162.8	161.4
45°	6450.2	3890.0	311.8	217.9	184.8	168.3	165.5	158.6	146.2	142.1	142.1
47.5°	6945.4	3932.7	274.5	198.6	166.9	150.4	149.0	136.6	125.5	122.8	121.4
50°	7254.4	3848.6	244.2	179.3	150.4	133.8	129.7	114.5	107.6	104.8	103.5
52.5°	7462.7	3698.2	219.3	162.8	135.2	118.6	109.0	97.9	92.4	89.7	89.7
55°	7629.6	3485.8	194.5	147.6	122.8	106.2	92.4	84.1	78.6	75.9	75.9
57.5°	7676.5	3197.5	169.7	135.2	110.4	93.8	78.6	73.1	66.2	64.8	64.8
60°	7335.8	2677.5	150.4	120.0	99.3	81.4	69.0	62.1	55.2	53.8	52.4
62.5°	6437.8	2071.9	132.4	106.2	86.9	70.4	59.3	51.0	45.5	45.5	45.5
65°	4910.8	1389.1	115.9	92.4	75.9	59.3	51.0	41.4	38.6	38.6	40.0
67.5°	2939.6	755.9	99.3	78.6	64.8	49.7	42.8	35.9	34.5	35.9	35.9
69°	1722.9	444.2	89.7	70.4	56.6	44.1	37.2	31.7	34.5	35.9	35.9
70°	1063.5	299.3	82.8	63.5	51.0	40.0	34.5	30.3	33.1	34.5	34.5
72.5°	296.6	154.5	66.2	49.7	41.4	33.1	27.6	27.6	31.7	33.1	33.1
75°	193.1	114.5	51.0	37.2	31.7	26.2	23.5	26.2	30.3	31.7	31.7
77.5°	160.0	93.8	41.4	30.3	26.2	24.8	22.1	23.5	27.6	29.0	29.0
80°	146.2	66.2	33.1	27.6	23.5	22.1	20.7	19.3	24.8	26.2	26.2
82.5°	139.3	52.4	29.0	24.8	22.1	19.3	17.9	19.3	22.1	23.5	24.8
85°	86.9	34.5	26.2	23.5	19.3	17.9	17.9	17.9	20.7	22.1	22.1
87.5°	31.7	27.6	23.5	19.3	16.6	16.6	16.6	16.6	17.9	20.7	20.7
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)