

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: P299734

Luminaire Tested: **GLNA-AF-07-LED-E1-SL2-600-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299734
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-07-LED-E1-SL2-600-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(7) 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: 20868.1 lumens
Efficiency: N/A
Efficacy: 92.3 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G3

Input Watts (W): 226
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

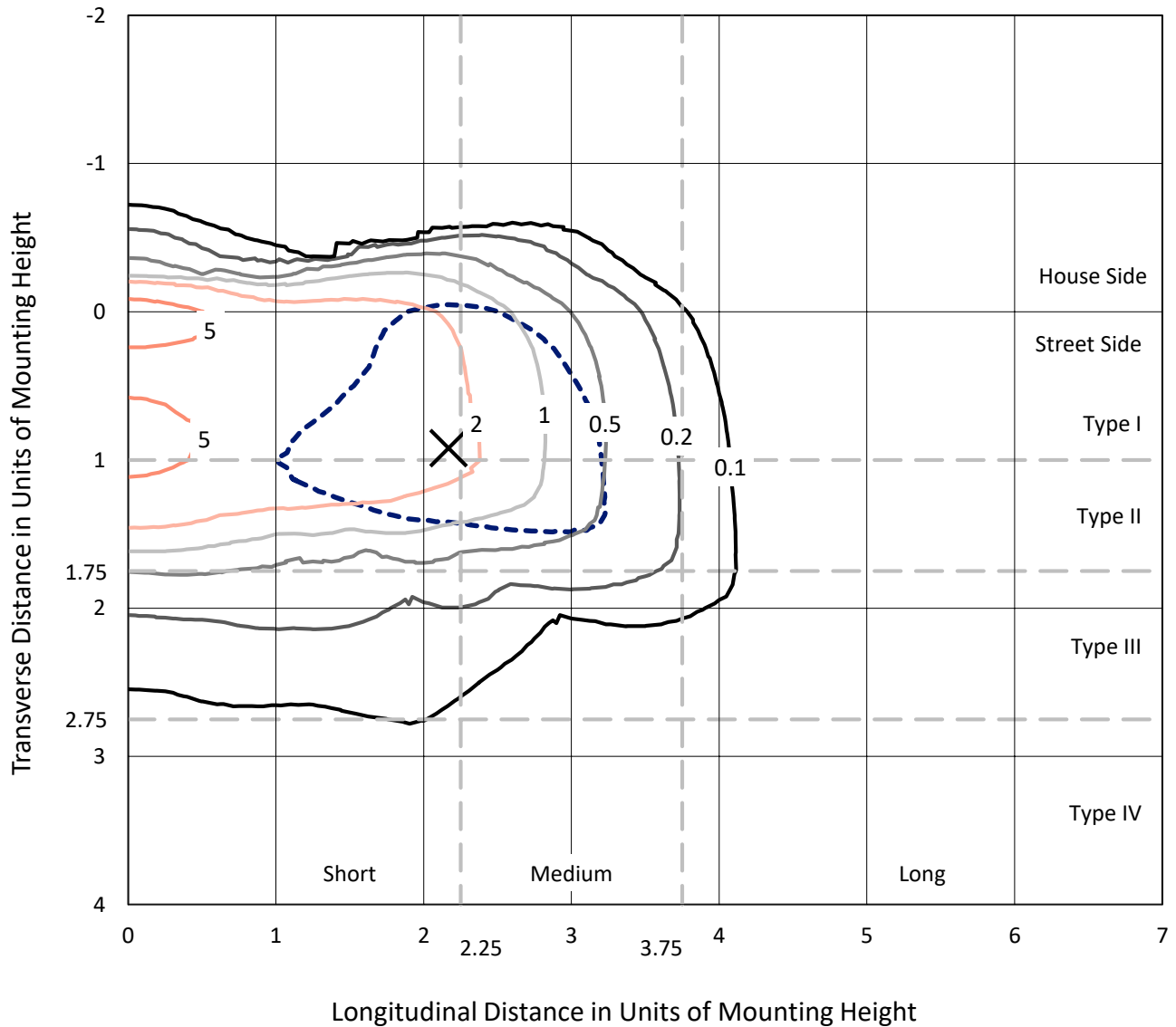


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

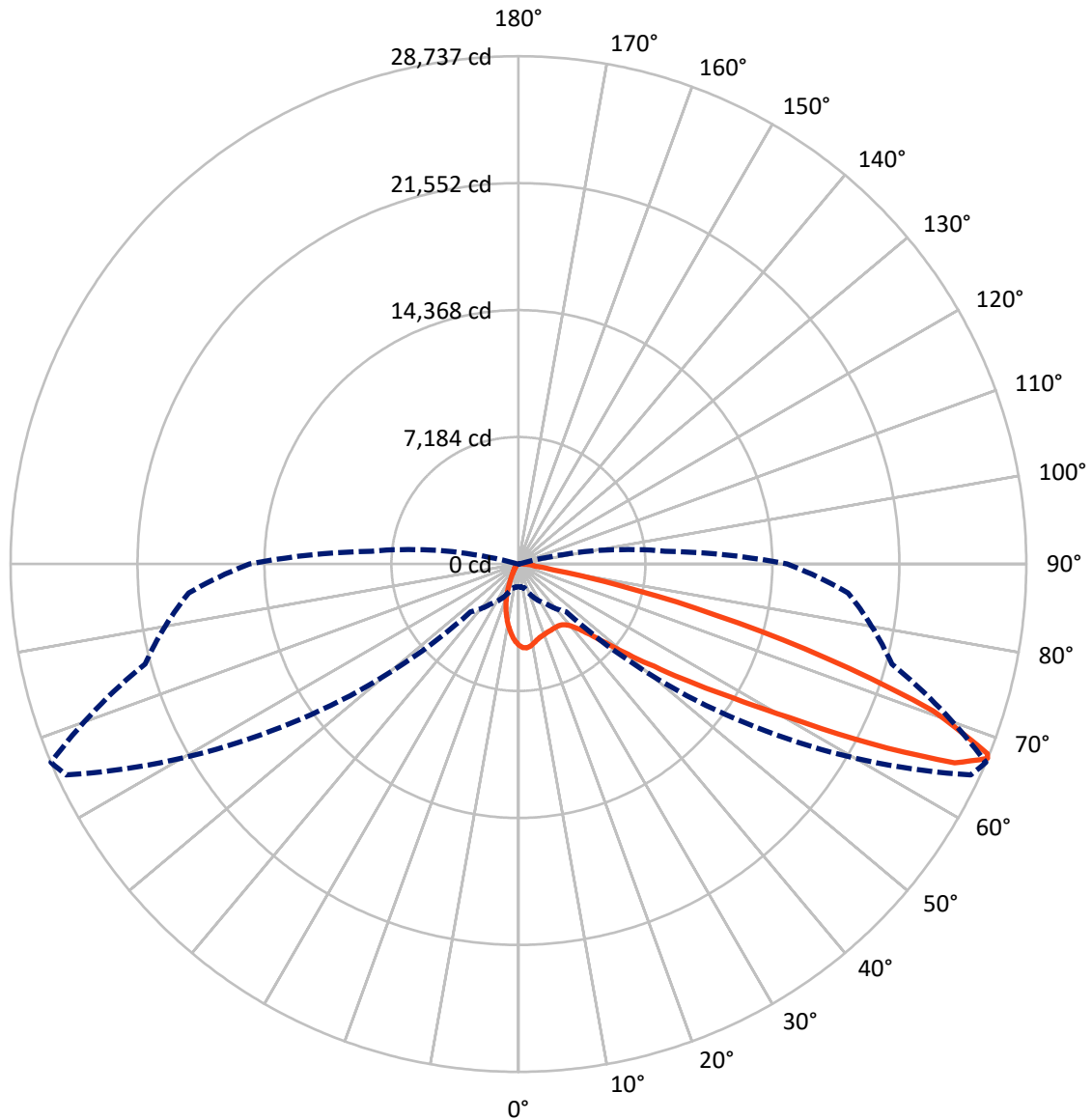


Based on 25 foot mounting height. Maximum calculated value = 7.4 fc
 Type II - Short - Semi-Cutoff

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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	2166.7	0.0	2166.7
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	18701.4	0.0	18701.4
	% Fixture	89.6	0.0	89.6
Total	Lumens	20868.1	0.0	20868.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	374.5	1.8
10°-20°	797.0	3.8
20°-30°	1158.8	5.6
30°-40°	1807.8	8.7
40°-50°	3202.4	15.3
50°-60°	5067.4	24.3
60°-70°	5804.1	27.8
70°-80°	2407.5	11.5
80°-90°	248.7	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°	20868.1	100.0
0°-180°	20868.1	100.0

Coefficient of Utilization



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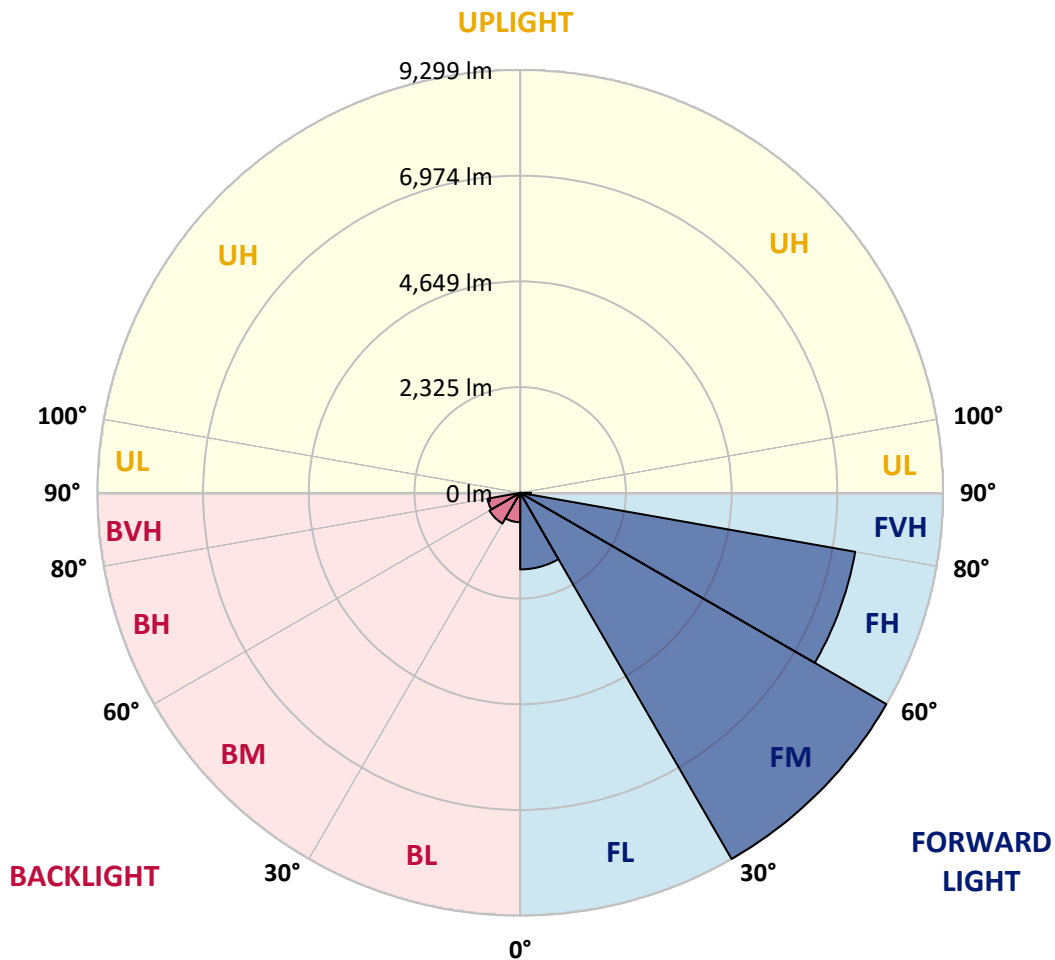
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1683.7	8.1			
FM (30°-60°)	9298.9	44.6			
FH (60°-80°)	7481.3	35.9			G3/7500
FVH (80°-90°)	237.5	1.1			G3/500
BL (0°-30°)	646.6	3.1	B2/1000		
BM (30°-60°)	778.7	3.7	B1/1000		
BH (60°-80°)	730.3	3.5	B2/1000		G2/1000
BVH (80°-90°)	11.2	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-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	4602.2	4602.2	4602.2	4602.2	4602.2	4602.2	4602.2	4602.2	4602.2	4602.2	4602.2
2.5°	4758.0	4767.7	4766.5	4773.8	4790.8	4792.1	4775.0	4742.2	4734.9	4692.3	4618.0
5°	4388.0	4416.0	4433.0	4502.4	4580.3	4674.0	4744.6	4770.2	4766.5	4736.1	4624.1
7.5°	3965.6	3993.6	4013.1	4094.6	4198.1	4358.7	4542.5	4693.5	4706.9	4739.7	4619.2
10°	3684.4	3689.3	3716.1	3794.0	3902.3	4066.6	4285.7	4549.8	4590.0	4710.5	4607.1
12.5°	3453.2	3456.8	3492.1	3576.1	3691.7	3857.3	4087.3	4392.8	4454.9	4674.0	4604.6
15°	3288.8	3302.2	3333.9	3421.5	3544.4	3708.8	3944.9	4277.2	4351.4	4660.6	4626.5
17.5°	3234.1	3248.7	3258.4	3321.7	3433.7	3594.4	3836.6	4201.7	4285.7	4667.9	4669.1
20°	3291.3	3302.2	3280.3	3296.1	3365.5	3509.2	3745.3	4137.2	4237.0	4676.4	4723.9
22.5°	3504.3	3509.2	3449.5	3380.1	3368.0	3447.1	3673.5	4086.1	4193.2	4699.6	4788.4
25°	3869.4	3860.9	3763.5	3613.8	3472.6	3436.1	3630.9	4054.5	4171.3	4723.9	4855.4
27.5°	4310.1	4322.2	4188.3	3970.5	3701.5	3509.2	3624.8	4041.1	4161.6	4740.9	4913.8
30°	4845.6	4862.7	4709.3	4435.4	4049.6	3689.3	3680.8	4038.6	4155.5	4730.0	4918.7
32.5°	5392.1	5412.8	5292.3	5009.9	4514.5	3991.2	3807.4	4065.4	4167.6	4692.3	4890.7
35°	5964.2	5993.4	5913.1	5670.9	5145.1	4426.9	4030.1	4147.0	4224.9	4688.6	4862.7
37.5°	6754.2	6781.0	6630.0	6373.2	5908.2	5011.2	4388.0	4300.3	4360.0	4747.0	4870.0
40°	7933.6	7930.0	7540.5	7147.3	6746.9	5753.6	4890.7	4577.8	4608.3	4923.5	4960.0
42.5°	9219.0	9212.9	8637.2	8039.5	7678.0	6667.8	5551.6	5057.4	5036.7	5248.5	5193.7
45°	10209.8	10208.6	9738.7	9065.6	8799.0	7717.0	6406.1	5724.4	5692.8	5776.8	5624.6
47.5°	10632.1	10639.4	10403.3	9929.8	10041.8	9136.2	7483.3	6690.9	6643.4	6609.3	6378.1
50°	10303.5	10318.1	10337.6	10245.1	10953.5	11043.5	8928.1	8052.9	8029.8	7877.6	7516.1
52.5°	9229.9	9304.2	9533.0	9826.4	11269.9	12874.2	11193.3	9744.8	9620.6	9458.8	9060.7
55°	7421.2	7502.7	7937.3	8649.3	10798.9	14076.8	14367.7	11926.0	11719.1	11235.9	10661.3
57.5°	4911.4	5037.9	5668.4	6574.0	9430.8	14270.3	17534.8	14953.1	14232.6	12909.5	12261.9
60°	2705.8	2827.5	3511.6	4332.0	6811.4	13313.6	19664.9	18894.4	17621.2	14780.3	14205.8
62.5°	1666.3	1732.1	2237.2	3000.4	4084.9	10508.0	20105.5	23847.1	22373.1	17189.1	16553.7
65°	1326.7	1354.7	1601.8	2452.6	2928.6	6250.3	18682.6	27622.9	27131.1	20105.5	18655.8
67°	1287.8	1298.7	1415.6	2105.7	2760.6	3831.7	15651.8	28237.5	28736.6	21870.4	18721.6
67.5°	1296.3	1308.5	1419.2	2009.6	2755.7	3521.3	14607.5	27995.3	28625.8	22010.4	18430.7
70°	1250.1	1287.8	1624.9	2008.4	2620.6	2926.1	8747.9	24256.1	24912.2	20451.2	15638.4
72.5°	443.1	445.5	702.3	1624.9	2849.4	2957.8	4392.8	17781.9	18267.5	15644.5	11274.8
75°	262.9	224.0	233.7	462.5	2722.8	2872.6	2534.2	11362.4	11543.8	8964.6	5709.8
77.5°	181.4	158.2	163.1	204.5	1037.0	2832.4	2013.2	5925.3	5731.7	3144.0	1216.0
80°	103.5	91.3	97.4	178.9	377.3	2642.5	1898.8	2402.7	2048.5	533.1	335.9
82.5°	54.8	46.3	56.0	147.3	262.9	1646.9	1902.5	1161.2	920.2	180.1	228.8
85°	19.5	15.8	26.8	101.0	175.3	505.1	1763.7	976.2	766.8	87.6	174.1
87.5°	3.7	3.7	11.0	41.4	70.6	154.6	1043.1	579.4	388.3	52.3	119.3
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°	4602.2	4602.2	4602.2	4602.2	4602.2	4602.2	4602.2	4602.2	4602.2	4602.2	4602.2
2.5°	4587.6	4535.2	4464.6	4378.2	4276.0	4185.9	4119.0	4049.6	4035.0	4010.6	4007.0
5°	4557.1	4467.1	4291.8	4091.0	3876.7	3683.2	3526.2	3386.2	3324.1	3270.6	3264.5
7.5°	4512.1	4377.0	4078.8	3755.0	3420.3	3116.0	2858.0	2675.4	2507.4	2427.1	2414.9
10°	4459.8	4266.2	3839.0	3389.9	2927.3	2497.7	2114.3	1792.9	1598.2	1482.5	1467.9
12.5°	4411.1	4157.9	3594.4	3011.3	2396.6	1822.1	1329.2	1022.4	817.9	735.2	725.4
15°	4388.0	4070.3	3365.5	2624.3	1841.6	1160.0	726.7	562.3	495.4	475.9	474.7
17.5°	4385.5	3996.0	3141.6	2223.8	1290.2	674.3	473.5	432.1	418.7	413.8	413.8
20°	4384.3	3925.4	2917.6	1808.7	819.2	449.1	394.4	384.6	374.9	368.8	368.8
22.5°	4397.7	3862.1	2683.9	1385.2	516.1	363.9	346.9	337.2	325.0	316.5	315.3
25°	4411.1	3813.4	2445.3	985.9	373.7	316.5	299.4	286.0	269.0	258.0	256.8
27.5°	4413.5	3752.6	2189.7	659.7	312.8	276.3	254.4	233.7	214.2	203.3	202.1
30°	4377.0	3650.3	1906.1	445.5	276.3	239.8	210.6	188.7	170.4	161.9	161.9
32.5°	4305.2	3523.8	1594.5	335.9	245.9	205.7	174.1	153.4	141.2	137.5	136.3
35°	4240.7	3387.4	1274.4	284.8	220.3	174.1	142.4	129.0	121.7	120.5	119.3
37.5°	4202.9	3277.9	973.7	258.0	196.0	146.1	120.5	110.8	107.1	104.7	105.9
40°	4232.2	3186.6	719.4	236.1	171.6	121.7	102.2	97.4	93.7	92.5	92.5
42.5°	4360.0	3170.8	534.3	216.7	148.5	101.0	88.9	85.2	82.8	81.6	82.8
45°	4695.9	3268.1	415.1	198.4	125.4	85.2	75.5	74.2	73.0	73.0	73.0
47.5°	5201.0	3469.0	345.7	177.7	104.7	73.0	65.7	64.5	63.3	64.5	64.5
50°	6056.7	3836.6	309.2	157.0	86.4	62.1	56.0	56.0	56.0	56.0	57.2
52.5°	7357.9	4559.6	284.8	136.3	70.6	52.3	47.5	47.5	48.7	48.7	49.9
55°	8807.6	5518.7	262.9	115.6	59.6	43.8	38.9	40.2	41.4	42.6	42.6
57.5°	10380.2	6581.3	244.7	94.9	51.1	35.3	32.9	34.1	35.3	37.7	37.7
60°	12277.8	7731.6	217.9	74.2	42.6	28.0	25.6	28.0	31.6	34.1	35.3
62.5°	14361.6	8844.1	183.8	58.4	35.3	21.9	20.7	25.6	30.4	32.9	34.1
65°	15785.7	9193.4	141.2	47.5	26.8	15.8	17.0	23.1	29.2	32.9	32.9
67°	15208.8	8335.3	115.6	40.2	21.9	12.2	15.8	23.1	29.2	31.6	32.9
67.5°	14808.3	7999.4	110.8	38.9	20.7	12.2	15.8	23.1	29.2	32.9	32.9
70°	12048.9	6009.3	92.5	29.2	17.0	11.0	13.4	21.9	28.0	31.6	31.6
72.5°	8371.8	3705.1	82.8	20.7	14.6	9.7	12.2	20.7	26.8	30.4	31.6
75°	3980.2	1341.3	70.6	15.8	13.4	8.5	11.0	20.7	26.8	30.4	30.4
77.5°	811.9	311.6	57.2	13.4	11.0	8.5	9.7	19.5	25.6	29.2	29.2
80°	266.6	120.5	42.6	12.2	11.0	8.5	9.7	18.3	25.6	28.0	29.2
82.5°	192.3	60.9	28.0	12.2	11.0	8.5	8.5	18.3	24.3	28.0	28.0
85°	147.3	42.6	18.3	12.2	11.0	8.5	8.5	17.0	23.1	26.8	26.8
87.5°	97.4	17.0	14.6	12.2	11.0	8.5	8.5	17.0	21.9	25.6	26.8
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)