

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: P301830

Luminaire Tested: **GLNA-AF-06-LED-E1-SL4-7027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301830
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-06-LED-E1-SL4-7027-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(6) 70 CRI, 2700K CCT 1050mA 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: 22810 lumens
Efficiency: N/A
Efficacy: 68.5 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G4

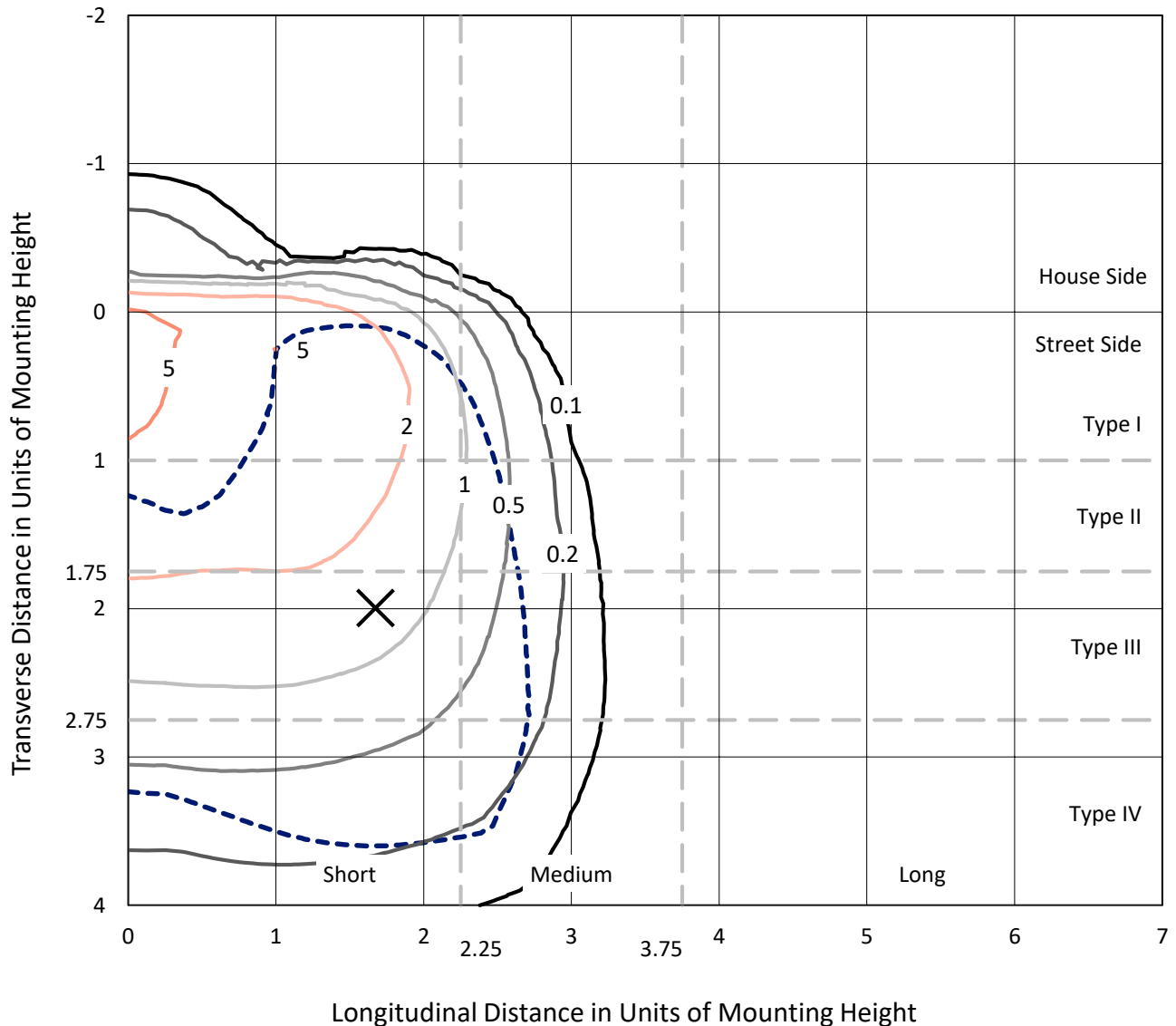
Input Watts (W): 333
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

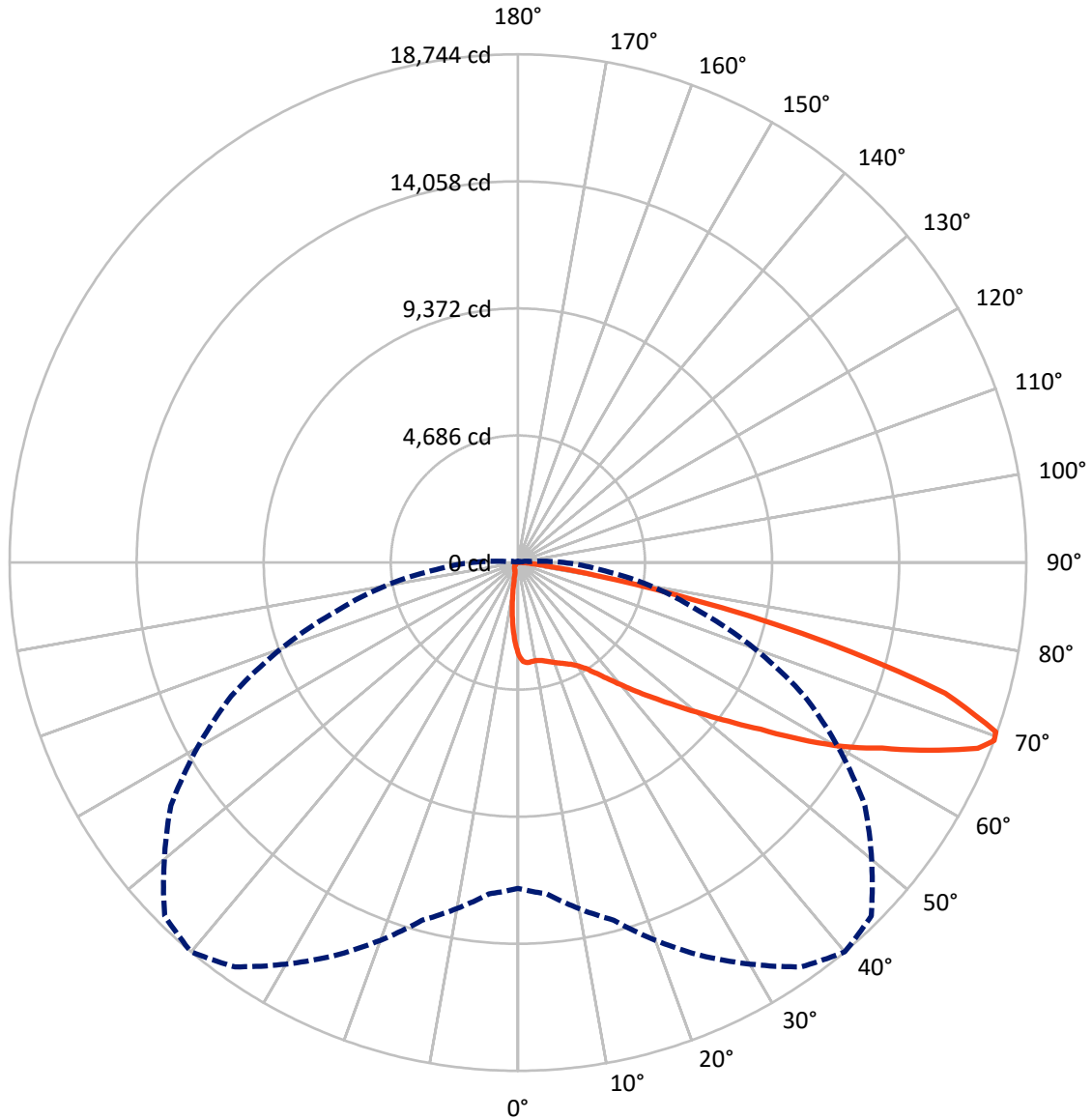
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6 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	1334.5	0.0	1334.5
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	21475.5	0.0	21475.5
	% Fixture	94.1	0.0	94.1
Total	Lumens	22810.0	0.0	22810.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	276.3	1.2
10°-20°	679.5	3.0
20°-30°	1144.5	5.0
30°-40°	1873.6	8.2
40°-50°	3244.1	14.2
50°-60°	5109.8	22.4
60°-70°	6673.2	29.3
70°-80°	3437.0	15.1
80°-90°	371.8	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°	22810.0	100.0
0°-180°	22810.0	100.0



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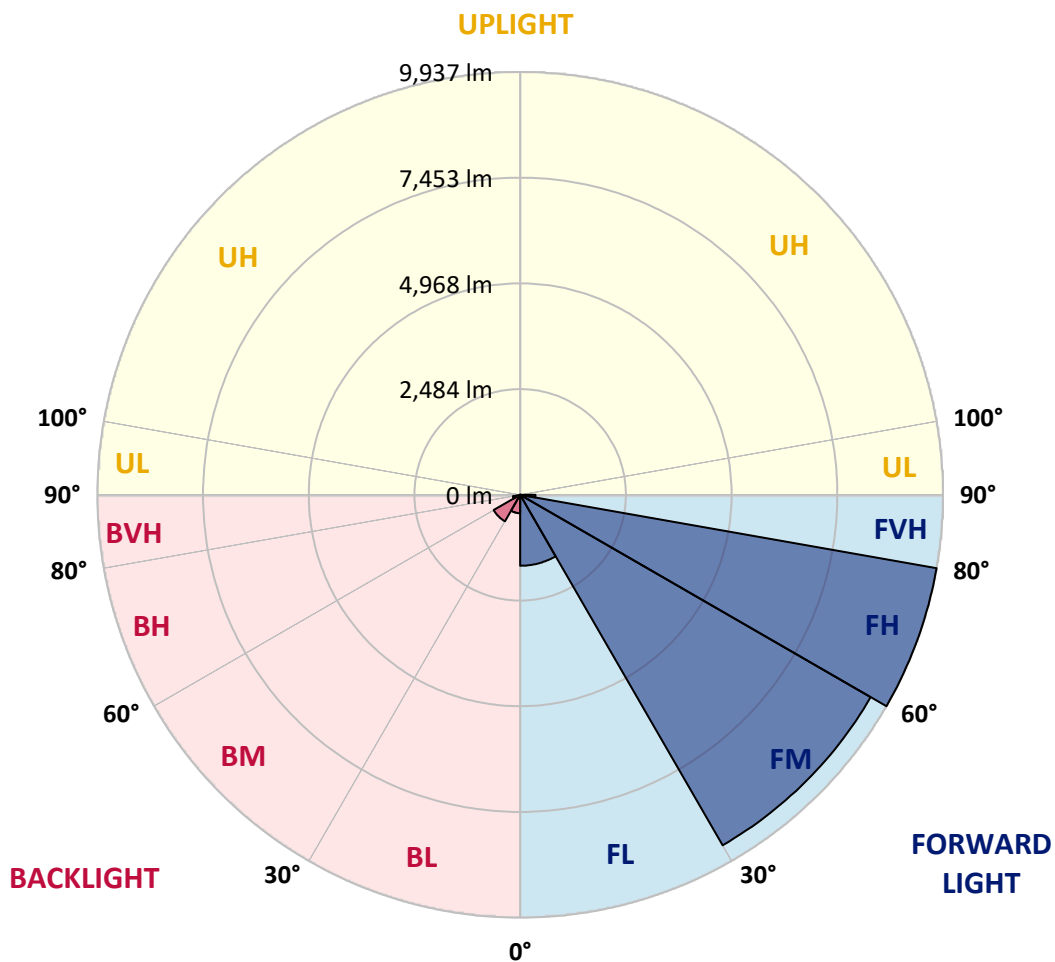
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1668.1	7.3			
FM	(30°-60°)	9510.3	41.7			
FH	(60°-80°)	9937.0	43.6			G4/12000
FVH	(80°-90°)	360.1	1.6			G3/500
BL	(0°-30°)	432.3	1.9	B1/500		
BM	(30°-60°)	717.3	3.1	B1/1000		
BH	(60°-80°)	173.3	0.8	B1/500		G1/500
BVH	(80°-90°)	11.7	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: 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°	3407.9	3407.9	3407.9	3407.9	3407.9	3407.9	3407.9	3407.9	3407.9	3407.9	3407.9
2.5°	3741.9	3721.6	3709.4	3693.1	3672.7	3655.0	3648.3	3598.0	3550.5	3485.3	3410.6
5°	3811.2	3804.4	3782.7	3760.9	3736.5	3709.4	3694.4	3634.7	3566.8	3471.7	3341.4
7.5°	3818.0	3809.8	3782.7	3752.8	3718.9	3686.3	3660.5	3600.7	3538.3	3441.9	3283.0
10°	3807.1	3797.6	3777.2	3744.7	3702.6	3671.3	3645.5	3588.5	3535.6	3448.7	3272.2
12.5°	3794.9	3785.4	3775.9	3759.6	3722.9	3701.2	3679.5	3625.2	3577.7	3504.3	3311.5
15°	3807.1	3801.7	3812.5	3805.8	3785.4	3766.4	3744.7	3695.8	3652.3	3591.2	3383.5
17.5°	3858.7	3858.7	3892.6	3896.7	3877.7	3850.6	3819.3	3770.5	3733.8	3682.2	3469.0
20°	3979.5	3975.5	4018.9	4027.1	3980.9	3938.8	3892.6	3832.9	3804.4	3771.8	3553.2
22.5°	4187.3	4168.3	4194.1	4185.9	4095.0	4029.8	3972.8	3899.4	3884.5	3869.6	3646.9
25°	4457.5	4446.6	4464.3	4384.1	4223.9	4135.7	4067.8	3985.0	3985.0	3999.9	3752.8
27.5°	4849.9	4809.1	4749.4	4608.2	4367.9	4255.2	4181.8	4093.6	4116.7	4172.3	3892.6
30°	5251.7	5206.9	5069.8	4852.6	4543.0	4424.9	4339.3	4247.0	4301.3	4403.2	4080.0
32.5°	5648.2	5598.0	5403.8	5129.5	4794.2	4676.1	4593.2	4491.4	4582.4	4753.5	4354.3
35°	6032.4	5987.6	5763.6	5440.5	5128.2	5030.4	4954.4	4866.1	4982.9	5221.9	4741.2
37.5°	6464.2	6415.3	6142.4	5792.1	5534.2	5463.6	5407.9	5319.6	5523.3	5873.6	5280.3
40°	6995.1	6912.3	6544.3	6195.4	6003.9	5970.0	5932.0	5919.8	6236.1	6720.8	5998.5
42.5°	7603.4	7467.6	6965.2	6620.4	6519.9	6544.3	6534.8	6589.1	7128.1	7774.4	6872.9
45°	8211.6	8036.5	7433.6	7073.8	7087.4	7173.0	7225.9	7443.1	8245.6	8982.8	7813.8
47.5°	8727.6	8555.1	7883.1	7564.0	7726.9	7895.3	8039.2	8450.6	9394.2	10172.2	8545.6
50°	9168.8	9005.9	8359.6	8103.0	8469.6	8741.1	8974.7	9584.3	10629.8	11077.8	9058.9
52.5°	9530.0	9421.4	8853.8	8720.8	9318.2	9716.0	10058.2	10788.6	11724.1	11813.7	9458.0
55°	9881.6	9804.3	9384.7	9455.3	10314.8	10856.5	11289.6	12066.3	12666.4	12427.4	9840.9
57.5°	10286.3	10215.7	9990.3	10386.7	11625.0	12306.6	12779.1	13198.6	13496.0	13054.7	10202.1
60°	10699.0	10658.3	10663.7	11421.3	13129.4	13783.8	14044.5	14153.1	14310.6	13645.3	10222.4
62.5°	11092.8	11170.1	11433.5	12572.7	14569.9	15072.3	15204.0	15311.3	15126.6	13739.0	9444.5
65°	11759.4	11885.7	12514.3	14113.7	16154.4	16692.1	16827.9	16459.9	15255.6	12527.9	7682.1
67.5°	12085.3	12316.1	13437.6	15550.2	17691.4	18288.8	18238.6	16534.6	13690.1	9553.1	4930.0
69°	12017.4	12263.1	13650.7	15990.1	18201.9	18743.6	18424.6	15620.8	11663.0	6920.4	3026.4
70°	11748.5	11997.0	13540.8	15973.8	18267.1	18696.1	18079.7	14492.5	9861.3	5060.3	1892.7
72.5°	9811.0	10025.6	12021.4	14438.2	16827.9	16478.9	15125.2	10040.5	4805.0	1378.1	426.3
75°	6039.2	6158.7	8625.7	10876.9	12709.8	11813.7	10077.2	4995.1	1432.4	389.7	236.2
77.5°	3190.7	3245.0	4722.2	6411.3	8056.8	6666.5	5164.9	1948.4	659.9	244.4	171.1
80°	1885.9	1926.6	2543.1	2931.4	3486.7	2912.4	2065.1	1196.2	472.5	153.4	152.1
82.5°	1079.4	1105.2	1843.8	1629.3	1374.0	1173.1	1027.8	1133.7	283.8	103.2	157.5
85°	396.5	401.9	1037.3	1239.6	817.4	486.1	510.5	939.6	76.0	65.2	123.6
87.5°	184.7	180.6	533.6	759.0	477.9	308.2	397.8	206.4	29.9	42.1	33.9
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°	3407.9	3407.9	3407.9	3407.9	3407.9	3407.9	3407.9	3407.9	3407.9	3407.9	3407.9
2.5°	3367.2	3317.0	3226.0	3132.3	3037.3	2964.0	2892.0	2835.0	2816.0	2780.7	2783.4
5°	3264.0	3171.7	2981.6	2788.8	2587.9	2422.2	2266.1	2139.8	2078.7	2016.2	2016.2
7.5°	3174.4	3040.0	2742.6	2429.0	2104.5	1831.6	1585.8	1401.2	1299.4	1217.9	1216.5
10°	3140.5	2958.5	2543.1	2093.6	1641.5	1269.5	977.6	790.2	693.8	631.4	628.6
12.5°	3155.4	2930.0	2389.6	1784.1	1216.5	816.0	566.2	445.3	404.6	385.6	385.6
15°	3198.8	2921.9	2236.2	1481.3	859.5	510.5	376.1	343.5	340.8	340.8	340.8
17.5°	3251.8	2924.6	2078.7	1186.7	585.2	365.2	324.5	320.4	323.1	323.1	323.1
20°	3306.1	2925.9	1909.0	913.8	412.8	317.7	305.5	304.1	306.8	306.8	308.2
22.5°	3372.6	2932.7	1739.3	682.9	340.8	300.1	290.6	290.6	291.9	291.9	290.6
25°	3448.7	2946.3	1562.8	506.4	310.9	287.8	279.7	278.3	279.7	278.3	277.0
27.5°	3543.7	2965.3	1365.9	396.5	297.3	275.6	268.8	268.8	267.5	266.1	264.8
30°	3663.2	2987.0	1144.6	336.7	283.8	264.8	258.0	256.6	255.3	252.5	252.5
32.5°	3845.1	3034.6	926.0	305.5	268.8	249.8	244.4	244.4	241.7	239.0	237.6
35°	4124.8	3128.2	730.5	286.5	252.5	233.5	226.7	226.7	224.0	222.7	221.3
37.5°	4511.8	3270.8	567.5	268.8	236.2	215.9	209.1	207.7	205.0	202.3	200.9
40°	5026.4	3447.3	446.7	252.5	220.0	198.2	192.8	190.1	184.7	180.6	180.6
42.5°	5672.6	3648.3	362.5	234.9	200.9	181.9	177.9	173.8	164.3	160.2	158.9
45°	6348.8	3828.8	306.8	214.5	181.9	165.6	162.9	156.1	143.9	139.8	139.8
47.5°	6836.2	3870.9	270.2	195.5	164.3	148.0	146.6	134.4	123.6	120.8	119.5
50°	7140.4	3788.1	240.3	176.5	148.0	131.7	127.6	112.7	105.9	103.2	101.8
52.5°	7345.4	3640.1	215.9	160.2	133.1	116.8	107.3	96.4	91.0	88.3	88.3
55°	7509.7	3431.0	191.4	145.3	120.8	104.5	91.0	82.8	77.4	74.7	74.7
57.5°	7555.8	3147.2	167.0	133.1	108.6	92.3	77.4	72.0	65.2	63.8	63.8
60°	7220.5	2635.4	148.0	118.1	97.8	80.1	67.9	61.1	54.3	53.0	51.6
62.5°	6336.6	2039.3	130.3	104.5	85.5	69.2	58.4	50.2	44.8	44.8	44.8
65°	4833.6	1367.2	114.1	91.0	74.7	58.4	50.2	40.7	38.0	38.0	39.4
67.5°	2893.3	744.0	97.8	77.4	63.8	48.9	42.1	35.3	33.9	35.3	35.3
69°	1695.8	437.2	88.3	69.2	55.7	43.4	36.7	31.2	33.9	35.3	35.3
70°	1046.8	294.6	81.5	62.5	50.2	39.4	33.9	29.9	32.6	33.9	33.9
72.5°	291.9	152.1	65.2	48.9	40.7	32.6	27.2	27.2	31.2	32.6	32.6
75°	190.1	112.7	50.2	36.7	31.2	25.8	23.1	25.8	29.9	31.2	31.2
77.5°	157.5	92.3	40.7	29.9	25.8	24.4	21.7	23.1	27.2	28.5	28.5
80°	143.9	65.2	32.6	27.2	23.1	21.7	20.4	19.0	24.4	25.8	25.8
82.5°	137.1	51.6	28.5	24.4	21.7	19.0	17.7	19.0	21.7	23.1	24.4
85°	85.5	33.9	25.8	23.1	19.0	17.7	17.7	17.7	20.4	21.7	21.7
87.5°	31.2	27.2	23.1	19.0	16.3	16.3	16.3	16.3	17.7	20.4	20.4
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)