

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: P299995

Luminaire Tested: **GLNA-AF-10-LED-E1-SL3-600-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299995
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194479)
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-SL3-600-HSS
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
w/Spill Control WITH HOUSESIDE SHEILD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30119.9 lumens
Efficiency: N/A
Efficacy: 93.3 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B2 - 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

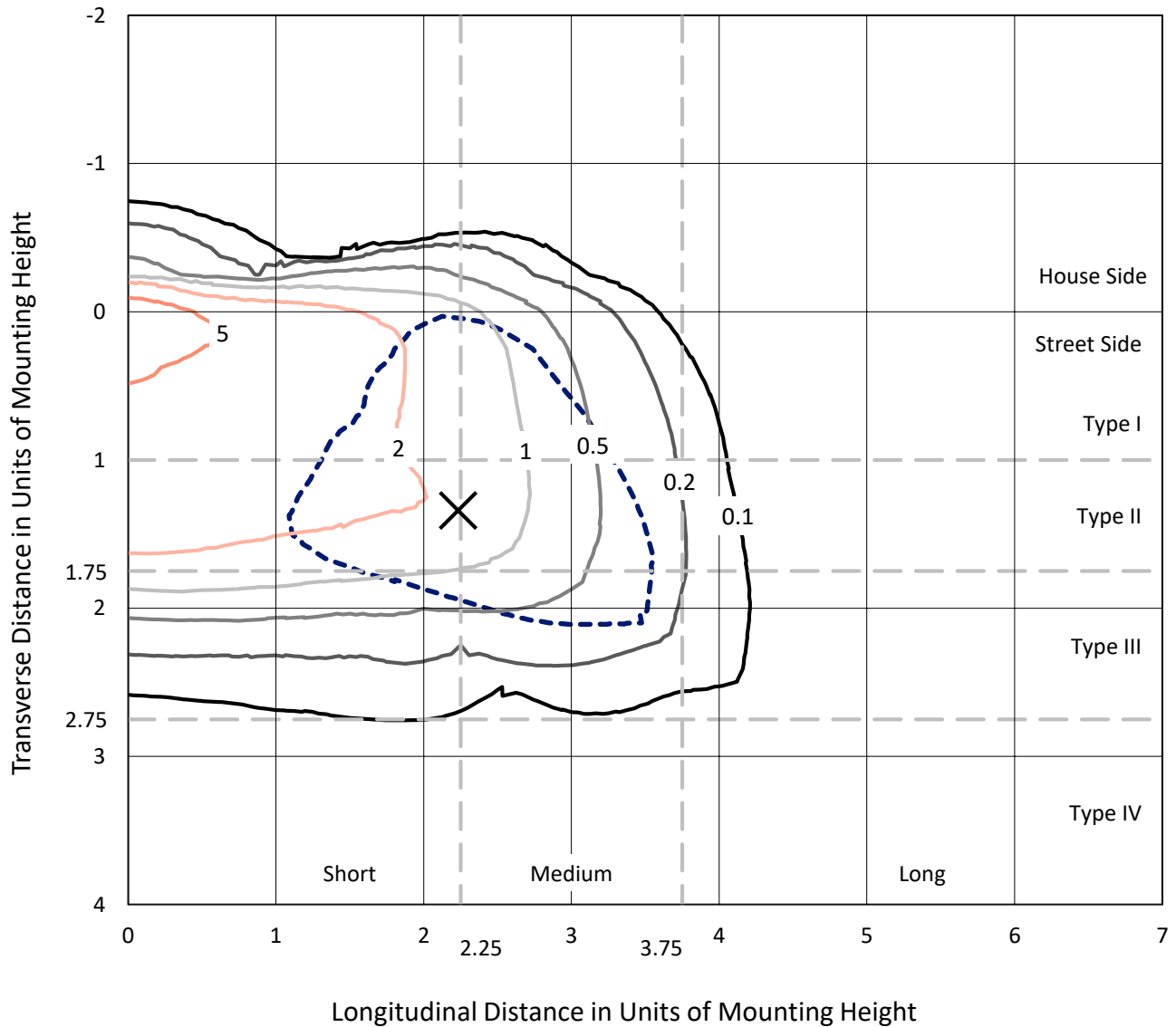


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

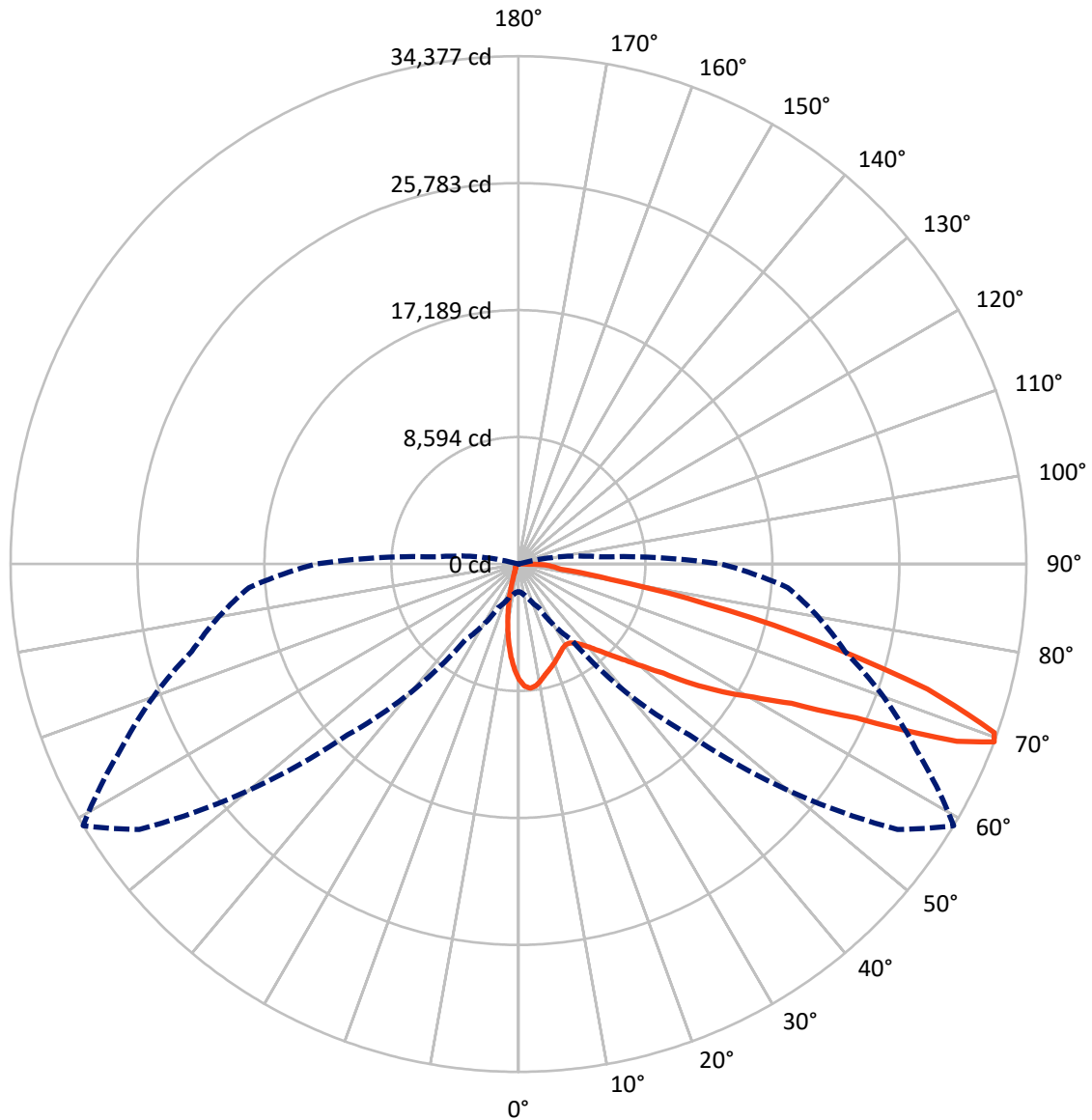


Based on 30 foot mounting height. Maximum calculated value = 8.8 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2452.8	0.0	2452.8
	% Fixture	8.1	0.0	8.1
Street Side	Lumens	27667.1	0.0	27667.1
	% Fixture	91.9	0.0	91.9
Total	Lumens	30119.9	0.0	30119.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	636.4	2.1
10°-20°	1314.9	4.4
20°-30°	1769.4	5.9
30°-40°	2569.0	8.5
40°-50°	4277.5	14.2
50°-60°	6672.9	22.2
60°-70°	8257.3	27.4
70°-80°	4184.7	13.9
80°-90°	437.9	1.5
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°	30119.9	100.0
0°-180°	30119.9	100.0



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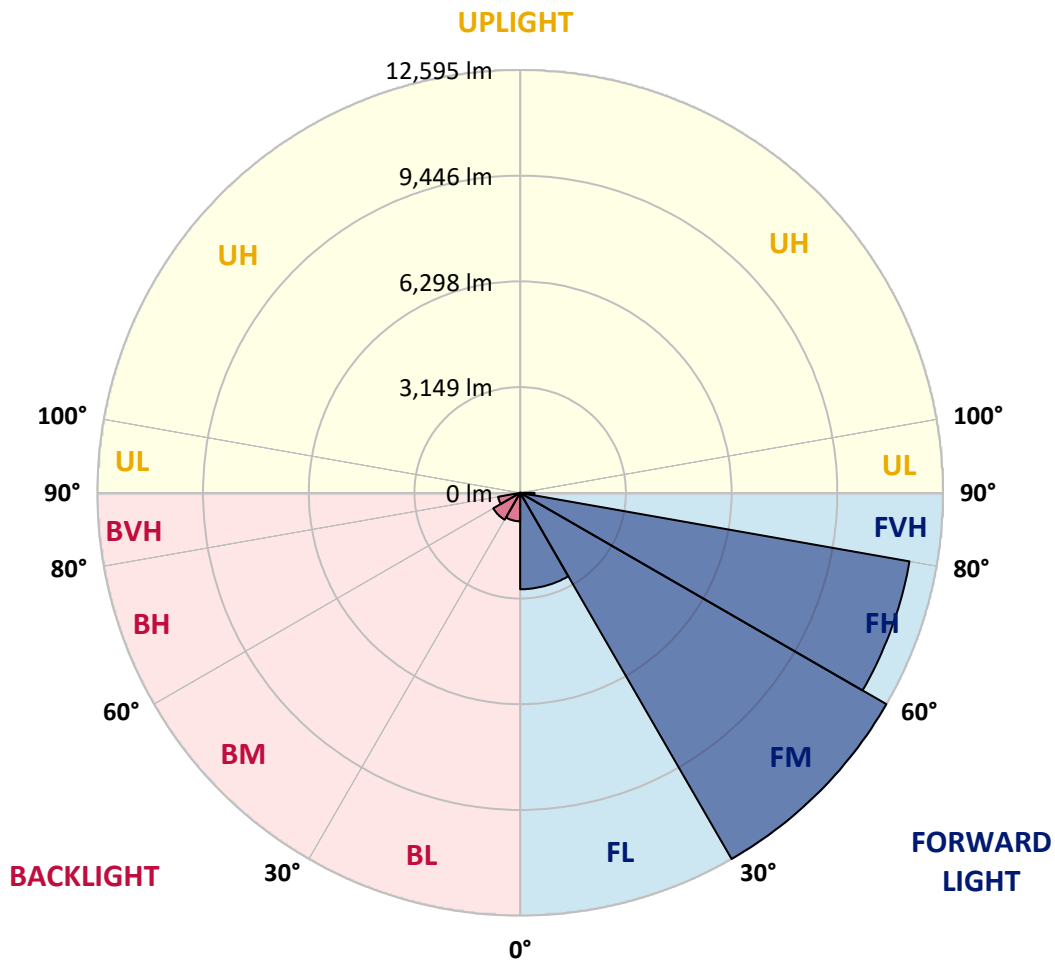
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2871.6	9.5			
FM	(30°-60°)	12595.3	41.8			
FH	(60°-80°)	11775.8	39.1			G4/12000
FVH	(80°-90°)	424.4	1.4			G3/500
BL	(0°-30°)	849.0	2.8	B2/1000		
BM	(30°-60°)	924.2	3.1	B1/1000		
BH	(60°-80°)	666.1	2.2	B2/1000		G2/1000
BVH	(80°-90°)	13.5	0.0			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G4

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	7839.6	7839.6	7839.6	7839.6	7839.6	7839.6	7839.6	7839.6	7839.6	7839.6	7839.6
2.5°	8592.5	8589.4	8551.8	8534.7	8503.8	8439.3	8338.8	8286.2	8201.1	8052.6	7853.6
5°	8514.1	8555.4	8577.0	8579.1	8601.3	8577.0	8486.8	8443.0	8325.4	8086.6	7729.3
7.5°	7983.0	7997.9	8061.4	8115.5	8221.2	8321.8	8354.3	8335.2	8265.6	8010.3	7534.9
10°	7414.2	7429.2	7504.4	7575.6	7719.0	7873.7	8037.1	8071.7	8100.6	7901.0	7347.7
12.5°	6923.3	6938.8	7015.6	7108.9	7276.0	7466.8	7720.5	7776.7	7904.6	7797.3	7197.6
15°	6501.0	6507.7	6583.0	6698.5	6898.0	7143.0	7431.2	7521.5	7717.4	7724.1	7066.7
17.5°	6141.6	6158.6	6205.0	6315.3	6533.5	6836.7	7172.4	7301.8	7531.3	7662.8	6938.8
20°	5921.9	5938.9	5937.3	5998.7	6194.7	6518.0	6913.5	7068.2	7347.7	7599.8	6824.8
22.5°	5879.6	5879.6	5835.2	5826.5	5942.5	6213.2	6644.3	6833.1	7182.2	7572.5	6744.9
25°	6031.2	6024.0	5913.6	5823.4	5828.5	5989.9	6383.4	6608.2	7042.9	7591.1	6702.1
27.5°	6351.4	6342.7	6202.9	6031.2	5893.0	5891.5	6185.9	6427.7	6932.1	7679.8	6719.1
30°	6793.9	6790.8	6639.2	6422.6	6172.5	5942.5	6117.8	6337.5	6860.4	7839.6	6758.3
32.5°	7277.6	7272.4	7158.4	6930.5	6613.4	6172.5	6189.5	6373.6	6881.0	8052.6	6853.7
35°	7790.6	7781.9	7732.4	7533.3	7184.2	6596.4	6424.6	6567.5	7010.4	8371.3	7040.9
37.5°	8345.5	8354.3	8389.8	8199.0	7832.9	7190.9	6818.1	6915.0	7270.9	8803.9	7345.6
40°	9164.9	9163.3	9175.2	8924.6	8572.4	7918.0	7367.8	7398.7	7707.1	9377.9	7809.2
42.5°	10651.5	10547.9	10232.8	9721.8	9367.5	8749.3	8061.4	8028.9	8240.3	10087.9	8457.9
45°	12649.7	12428.0	11610.7	10631.4	10178.2	9686.2	8914.3	8810.6	8945.2	10941.3	9258.7
47.5°	14367.9	14137.9	12981.8	11578.2	11038.3	10575.2	9914.1	9727.0	9771.3	11896.9	10273.6
50°	14952.2	14839.8	13830.1	12402.7	11871.1	11694.2	11074.4	10845.9	10783.0	13001.9	11450.3
52.5°	14749.5	14741.3	14068.3	12937.5	12634.3	12852.4	12533.7	12269.7	12038.2	14167.3	12647.7
55°	14424.1	14466.9	14165.3	13405.7	13395.4	13910.0	14529.8	14310.2	13639.3	15432.8	13680.0
57.5°	13526.9	13708.9	14111.1	14291.6	14710.3	15236.8	16192.3	16321.8	15528.2	16401.7	14536.5
60°	10975.4	11375.5	12690.5	14419.0	16405.3	17716.6	18198.8	18309.1	17077.7	17207.2	15693.2
62.5°	7790.6	8199.0	9866.7	12791.0	16430.6	20974.6	21187.6	20753.4	18784.6	18401.4	17687.8
65°	4135.1	4450.7	5813.1	9233.0	14245.7	21731.1	26414.9	25120.5	21795.5	20749.8	20264.5
67.5°	2115.3	2210.6	2752.6	4518.8	9793.5	19302.3	31100.2	32011.3	26985.2	23080.1	20140.3
69°	1871.9	1928.1	2287.5	3266.7	6271.0	16349.1	31328.6	34377.2	29702.2	22885.7	18302.4
70°	1812.0	1861.5	2188.5	2956.8	4901.9	13710.5	30454.6	34169.4	30396.8	22146.7	16929.7
72.5°	1538.2	1580.5	1948.7	2612.9	3984.0	6805.7	24738.9	28954.5	27276.5	18448.9	12254.2
75°	1028.7	1168.5	1870.3	2449.4	3706.1	3866.4	16309.9	20923.6	19436.9	12443.5	6383.4
77.5°	247.0	265.6	528.0	1948.7	3389.5	3402.9	8388.3	13007.1	10609.3	4435.2	1508.8
80°	133.0	127.9	148.0	386.7	3155.9	3193.5	3776.2	6313.8	3788.1	735.9	497.1
82.5°	93.9	88.7	95.4	161.9	993.2	2908.9	2732.0	2857.8	1570.2	282.6	223.3
85°	34.0	32.5	52.6	146.4	311.5	1672.3	2806.8	2357.1	1272.1	129.4	163.5
87.5°	11.9	10.3	20.6	79.9	95.4	712.1	1732.1	1781.6	500.7	78.4	76.8
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°	7839.6	7839.6	7839.6	7839.6	7839.6	7839.6	7839.6	7839.6	7839.6	7839.6	7839.6
2.5°	7770.0	7664.3	7470.4	7270.9	7086.8	6865.5	6754.7	6645.9	6600.0	6583.0	6503.0
5°	7545.2	7366.3	6954.2	6540.2	6158.6	5753.3	5486.1	5271.6	5145.3	5083.9	4987.0
7.5°	7257.4	6964.5	6339.0	5700.7	5106.1	4520.3	4086.1	3752.0	3522.0	3411.6	3311.1
10°	6978.0	6588.1	5699.1	4828.7	4021.1	3244.6	2644.8	2210.6	1933.2	1805.3	1723.9
12.5°	6727.9	6222.0	5080.8	3978.9	2965.1	2055.9	1445.9	1100.4	928.2	868.4	839.5
15°	6504.6	5884.8	4496.6	3171.3	2008.0	1175.2	790.5	672.9	645.6	645.6	642.0
17.5°	6293.2	5554.2	3932.4	2413.3	1260.3	718.8	601.3	585.8	585.8	592.5	592.5
20°	6090.5	5239.1	3387.4	1732.1	793.6	570.3	543.5	539.9	543.5	551.8	551.8
22.5°	5916.7	4952.9	2878.4	1188.6	589.4	514.1	500.7	495.6	497.1	502.3	505.9
25°	5787.3	4711.1	2398.4	805.5	507.4	468.2	453.3	444.5	437.8	437.8	440.9
27.5°	5705.8	4506.9	1933.2	585.8	456.4	425.9	401.7	388.3	372.8	364.6	367.7
30°	5646.0	4312.5	1497.0	478.5	408.9	378.0	347.6	325.4	303.2	292.9	296.5
32.5°	5623.8	4155.7	1119.0	422.3	366.1	332.1	294.4	265.6	241.8	233.1	235.1
35°	5683.6	4031.5	819.4	381.6	332.1	289.3	247.0	214.5	196.0	190.8	192.3
37.5°	5840.4	3964.9	613.1	347.6	301.7	253.7	206.3	175.3	163.5	163.5	165.0
40°	6136.4	3963.4	492.5	323.8	274.3	219.7	170.2	148.0	141.3	144.9	146.4
42.5°	6569.0	4053.6	429.0	301.7	250.6	187.2	141.3	125.8	124.3	127.9	129.4
45°	7160.0	4218.6	395.0	282.6	224.8	156.8	119.1	108.8	108.8	114.0	116.0
47.5°	7884.0	4460.5	366.1	264.0	199.0	131.0	102.1	95.4	96.9	102.1	103.6
50°	8756.0	4765.8	337.2	243.4	180.5	108.8	88.7	83.5	85.1	91.8	93.9
52.5°	9749.1	5176.2	313.5	224.8	156.8	90.2	74.8	71.7	74.8	82.0	83.5
55°	10600.5	5543.9	284.6	209.4	125.8	74.8	61.4	61.4	65.0	73.2	74.8
57.5°	11419.9	5928.6	258.9	180.5	99.0	59.8	51.1	52.6	57.8	66.5	68.1
60°	12622.4	6580.9	228.4	151.6	74.8	47.4	42.8	44.3	51.1	59.8	61.4
62.5°	14664.4	7574.1	197.5	125.8	57.8	37.6	34.0	37.6	45.9	56.2	57.8
65°	16507.4	7977.8	161.9	105.7	44.3	28.9	28.9	34.0	44.3	54.7	56.2
67.5°	15480.2	6715.5	125.8	83.5	34.0	22.2	23.7	32.5	42.8	54.7	56.2
69°	13690.3	5491.3	107.3	66.5	28.9	20.6	22.2	32.5	42.8	52.6	54.7
70°	12295.5	4636.3	95.4	56.2	25.8	20.6	22.2	30.4	42.8	52.6	54.7
72.5°	8235.1	2503.5	76.8	40.7	23.7	18.6	18.6	30.4	40.7	51.1	52.6
75°	3539.0	691.5	61.4	28.9	20.6	17.0	17.0	28.9	39.2	49.5	52.6
77.5°	647.2	175.3	49.5	25.8	20.6	17.0	15.5	27.3	37.6	47.4	49.5
80°	257.3	86.6	39.2	22.2	18.6	15.5	13.4	25.8	35.6	45.9	47.4
82.5°	155.2	49.5	32.5	20.6	18.6	13.4	11.9	22.2	34.0	44.3	45.9
85°	125.8	34.0	25.8	20.6	17.0	13.4	10.3	20.6	30.4	42.8	44.3
87.5°	61.4	23.7	23.7	18.6	17.0	13.4	10.3	18.6	28.9	40.7	42.8
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)