

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-09-LED-E1-SL3-7027-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-09-LED-E1-SL3-7027-HSS
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 2700K CCT 1050mA 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: 35880 lumens
Efficiency: N/A
Efficacy: 71.6 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B3 - U0 - G5

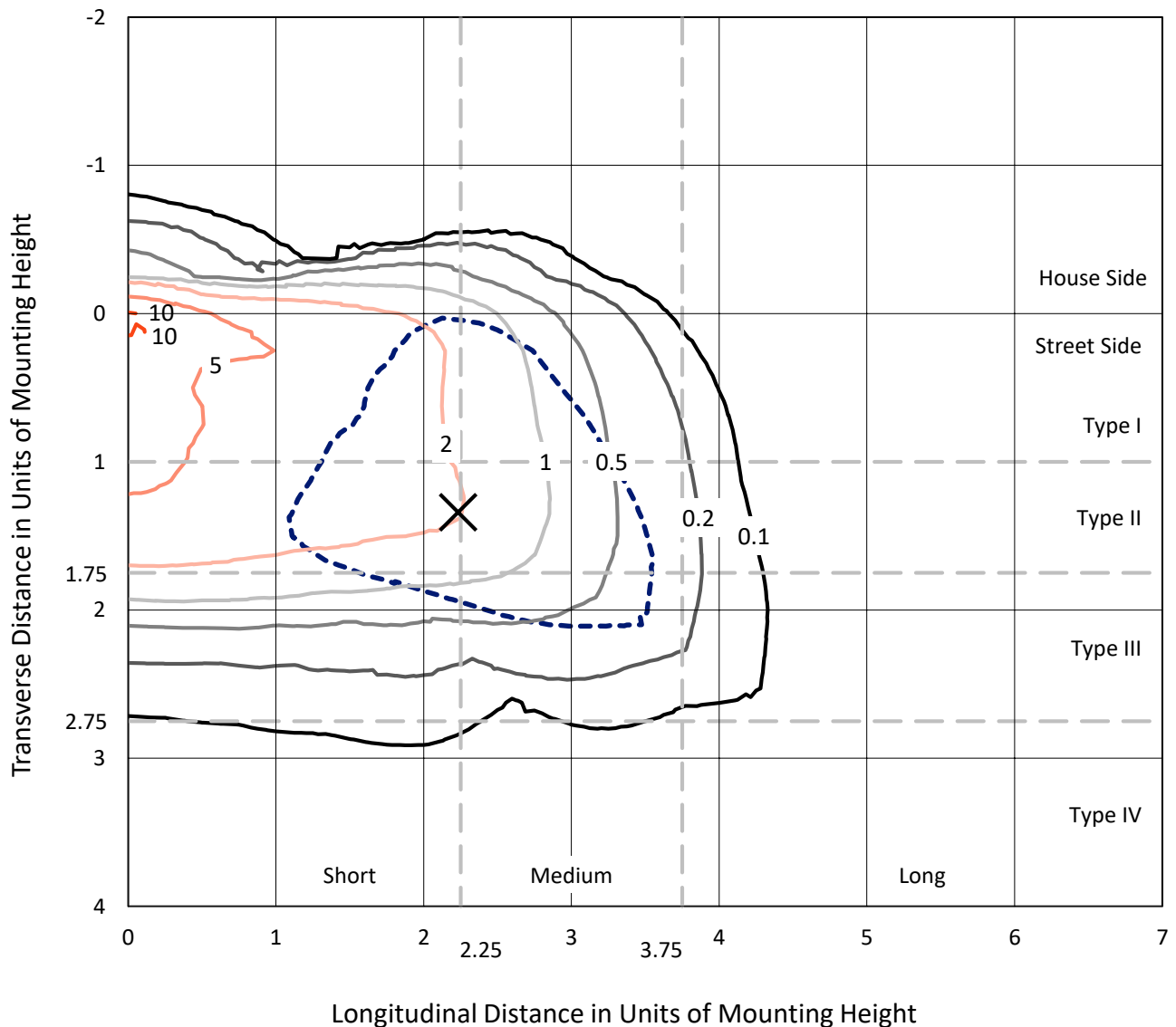
Input Watts (W): 501
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

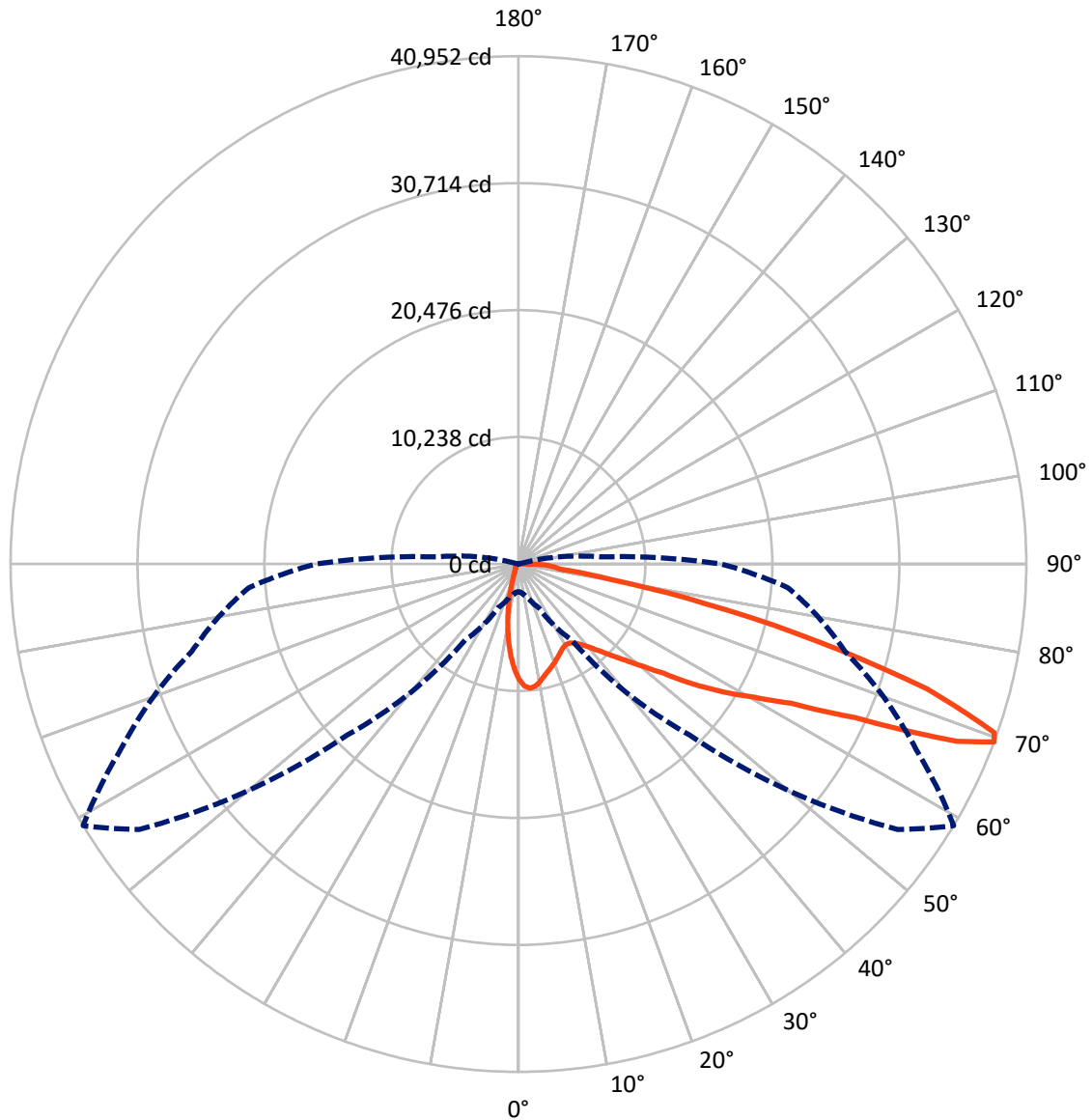
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 10.4 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	2921.9	0.0	2921.9
	% Fixture	8.1	0.0	8.1
Street Side	Lumens	32958.1	0.0	32958.1
	% Fixture	91.9	0.0	91.9
Total	Lumens	35880.0	0.0	35880.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	758.1	2.1
10°-20°	1566.4	4.4
20°-30°	2107.7	5.9
30°-40°	3060.3	8.5
40°-50°	5095.6	14.2
50°-60°	7949.1	22.2
60°-70°	9836.4	27.4
70°-80°	4985.0	13.9
80°-90°	521.6	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°	35880.0	100.0
0°-180°	35880.0	100.0



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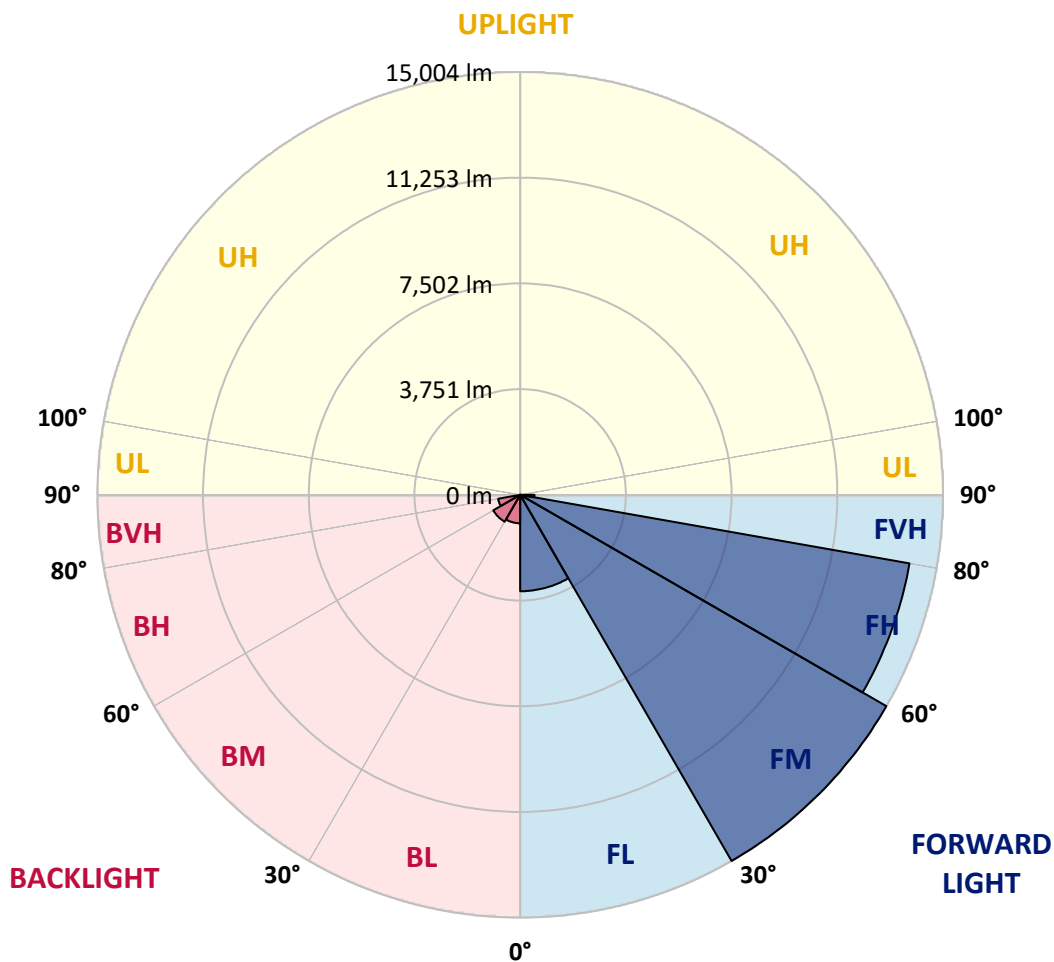
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3420.8	9.5			
FM	(30°-60°)	15004.0	41.8			
FH	(60°-80°)	14027.8	39.1			G5
FVH	(80°-90°)	505.5	1.4			G4/750
BL	(0°-30°)	1011.4	2.8	B3/2500		
BM	(30°-60°)	1101.0	3.1	B2/2500		
BH	(60°-80°)	793.5	2.2	B2/1000		G2/1000
BVH	(80°-90°)	16.0	0.0			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	9338.9	9338.9	9338.9	9338.9	9338.9	9338.9	9338.9	9338.9	9338.9	9338.9	9338.9
2.5°	10235.7	10232.0	10187.2	10166.9	10130.1	10053.3	9933.5	9870.8	9769.5	9592.6	9355.5
5°	10142.4	10191.5	10217.3	10219.8	10246.2	10217.3	10109.8	10057.6	9917.5	9633.1	9207.4
7.5°	9509.6	9527.5	9603.0	9667.5	9793.4	9913.2	9951.9	9929.2	9846.3	9542.2	8975.8
10°	8832.1	8849.9	8939.6	9024.4	9195.1	9379.4	9574.1	9615.3	9649.7	9412.0	8752.9
12.5°	8247.3	8265.7	8357.3	8468.4	8667.5	8894.8	9197.0	9263.9	9416.3	9288.5	8574.1
15°	7744.2	7752.2	7841.9	7979.5	8217.2	8509.0	8852.4	8959.9	9193.3	9201.3	8418.1
17.5°	7316.1	7336.3	7391.6	7523.1	7782.9	8144.1	8544.0	8698.2	8971.5	9128.2	8265.7
20°	7054.4	7074.6	7072.8	7145.9	7379.3	7764.5	8235.6	8419.9	8752.9	9053.2	8130.0
22.5°	7004.0	7004.0	6951.2	6940.7	7078.9	7401.4	7915.0	8139.8	8555.7	9020.7	8034.8
25°	7184.6	7176.0	7044.5	6937.0	6943.2	7135.5	7604.2	7872.0	8389.8	9042.8	7983.8
27.5°	7566.1	7555.6	7389.2	7184.6	7020.0	7018.1	7368.9	7657.0	8257.7	9148.4	8004.0
30°	8093.1	8089.4	7908.8	7650.8	7352.9	7078.9	7287.8	7549.5	8172.4	9338.9	8050.7
32.5°	8669.3	8663.2	8527.4	8255.9	7878.1	7352.9	7373.2	7592.5	8196.9	9592.6	8164.4
35°	9280.5	9270.1	9211.1	8974.0	8558.1	7857.9	7653.3	7823.5	8351.1	9972.2	8387.4
37.5°	9941.5	9951.9	9994.3	9767.0	9330.9	8566.1	8122.0	8237.5	8661.3	10487.6	8750.4
40°	10917.6	10915.7	10929.9	10631.3	10211.8	9432.2	8776.8	8813.7	9181.0	11171.3	9302.6
42.5°	12688.5	12565.1	12189.7	11581.0	11159.0	10422.5	9603.0	9564.3	9816.2	12017.1	10075.4
45°	15068.9	14804.7	13831.1	12664.6	12124.6	11538.6	10619.0	10495.6	10655.9	13033.8	11029.4
47.5°	17115.6	16841.7	15464.5	13792.4	13149.2	12597.6	11810.1	11587.1	11640.0	14172.0	12238.3
50°	17811.6	17677.7	16474.9	14774.6	14141.3	13930.6	13192.2	12920.1	12845.2	15488.4	13640.1
52.5°	17570.2	17560.4	16758.7	15411.6	15050.4	15310.3	14930.7	14616.1	14340.3	16876.7	15066.4
55°	17182.6	17233.6	16874.2	15969.4	15957.1	16570.2	17308.5	17046.8	16247.7	18384.1	16296.2
57.5°	16113.8	16330.6	16809.7	17024.7	17523.5	18150.7	19289.0	19443.1	18497.8	19538.4	17316.5
60°	13074.3	13551.0	15117.4	17176.5	19542.7	21104.8	21679.1	21810.6	20343.7	20497.9	18694.3
62.5°	9280.5	9767.0	11753.6	15237.2	19572.8	24985.8	25239.5	24722.3	22376.9	21920.5	21070.4
65°	4925.9	5301.8	6924.8	10998.7	16970.1	25886.9	31466.4	29924.6	25963.7	24718.0	24139.9
67.5°	2519.8	2633.4	3279.0	5382.9	11666.4	22993.7	37047.7	38133.2	32145.8	27493.9	23991.9
69°	2229.8	2296.8	2724.9	3891.5	7470.2	19475.7	37319.9	40951.5	35382.4	27262.3	21802.6
70°	2158.6	2217.5	2607.0	3522.3	5839.3	16332.4	36278.7	40703.9	36209.9	26382.0	20167.4
72.5°	1832.4	1882.8	2321.4	3112.5	4745.9	8107.2	29470.0	34491.7	32492.9	21977.0	14597.7
75°	1225.5	1392.0	2228.0	2917.8	4414.8	4605.9	19429.0	24925.0	23154.0	14823.2	7604.2
77.5°	294.2	316.4	629.0	2321.4	4037.7	4053.6	9992.5	15494.6	12638.2	5283.4	1797.4
80°	158.5	152.3	176.3	460.7	3759.4	3804.2	4498.4	7521.2	4512.5	876.6	592.2
82.5°	111.8	105.7	113.6	192.9	1183.1	3465.1	3254.4	3404.3	1870.5	336.6	266.0
85°	40.5	38.7	62.7	174.5	371.0	1992.1	3343.5	2807.9	1515.4	154.2	194.7
87.5°	14.1	12.3	24.6	95.2	113.6	848.3	2063.4	2122.3	596.5	93.4	91.5
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°	9338.9	9338.9	9338.9	9338.9	9338.9	9338.9	9338.9	9338.9	9338.9	9338.9	9338.9
2.5°	9255.9	9130.0	8899.1	8661.3	8442.0	8178.5	8046.4	7916.8	7862.2	7841.9	7746.7
5°	8988.1	8775.0	8284.2	7790.9	7336.3	6853.5	6535.3	6279.8	6129.3	6056.2	5940.7
7.5°	8645.4	8296.4	7551.3	6790.8	6082.6	5384.8	4867.5	4469.5	4195.5	4064.1	3944.3
10°	8312.4	7848.0	6789.0	5752.1	4790.1	3865.0	3150.6	2633.4	2302.9	2150.6	2053.5
12.5°	8014.5	7411.9	6052.5	4739.8	3532.1	2449.1	1722.4	1310.9	1105.7	1034.4	1000.0
15°	7748.5	7010.1	5356.5	3777.8	2392.0	1399.9	941.7	801.6	769.1	769.1	764.8
17.5°	7496.7	6616.4	4684.5	2874.8	1501.3	856.3	716.2	697.8	697.8	705.8	705.8
20°	7255.2	6241.1	4035.2	2063.4	945.4	679.4	647.4	643.1	647.4	657.3	657.3
22.5°	7048.2	5900.1	3428.9	1415.9	702.1	612.4	596.5	590.3	592.2	598.3	602.6
25°	6894.0	5612.0	2857.0	959.5	604.5	557.8	540.0	529.5	521.5	521.5	525.2
27.5°	6797.0	5368.8	2302.9	697.8	543.6	507.4	478.5	462.6	444.1	434.3	438.0
30°	6725.7	5137.2	1783.3	570.1	487.1	450.3	414.0	387.6	361.2	348.9	353.2
32.5°	6699.3	4950.5	1333.0	503.1	436.1	395.6	350.8	316.4	288.1	277.7	280.1
35°	6770.6	4802.4	976.1	454.6	395.6	344.6	294.2	255.5	233.4	227.3	229.1
37.5°	6957.3	4723.2	730.4	414.0	359.4	302.2	245.7	208.9	194.7	194.7	196.6
40°	7309.9	4721.3	586.6	385.8	326.8	261.7	202.7	176.3	168.3	172.6	174.5
42.5°	7825.3	4828.8	511.1	359.4	298.5	223.0	168.3	149.9	148.0	152.3	154.2
45°	8529.3	5025.4	470.5	336.6	267.8	186.7	141.9	129.6	129.6	135.8	138.2
47.5°	9391.7	5313.5	436.1	314.5	237.1	156.0	121.6	113.6	115.5	121.6	123.5
50°	10430.4	5677.2	401.7	289.9	215.0	129.6	105.7	99.5	101.4	109.3	111.8
52.5°	11613.5	6166.1	373.5	267.8	186.7	107.5	89.1	85.4	89.1	97.7	99.5
55°	12627.7	6604.1	339.1	249.4	149.9	89.1	73.1	73.1	77.4	87.2	89.1
57.5°	13603.8	7062.4	308.4	215.0	117.9	71.3	60.8	62.7	68.8	79.2	81.1
60°	15036.3	7839.4	272.1	180.6	89.1	56.5	51.0	52.8	60.8	71.3	73.1
62.5°	17468.9	9022.5	235.3	149.9	68.8	44.8	40.5	44.8	54.7	67.0	68.8
65°	19664.3	9503.5	192.9	125.9	52.8	34.4	34.4	40.5	52.8	65.1	67.0
67.5°	18440.6	7999.7	149.9	99.5	40.5	26.4	28.3	38.7	51.0	65.1	67.0
69°	16308.5	6541.5	127.8	79.2	34.4	24.6	26.4	38.7	51.0	62.7	65.1
70°	14646.9	5523.0	113.6	67.0	30.7	24.6	26.4	36.2	51.0	62.7	65.1
72.5°	9810.0	2982.3	91.5	48.5	28.3	22.1	22.1	36.2	48.5	60.8	62.7
75°	4215.8	823.7	73.1	34.4	24.6	20.3	20.3	34.4	46.7	59.0	62.7
77.5°	770.9	208.9	59.0	30.7	24.6	20.3	18.4	32.6	44.8	56.5	59.0
80°	306.5	103.2	46.7	26.4	22.1	18.4	16.0	30.7	42.4	54.7	56.5
82.5°	184.9	59.0	38.7	24.6	22.1	16.0	14.1	26.4	40.5	52.8	54.7
85°	149.9	40.5	30.7	24.6	20.3	16.0	12.3	24.6	36.2	51.0	52.8
87.5°	73.1	28.3	28.3	22.1	20.3	16.0	12.3	22.1	34.4	48.5	51.0
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)