

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: P453747

Luminaire Tested: **GALN-SA4D-740-U-T2R-HSS**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P453747  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GALN-SA4D-740-U-T2R-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II  
ROADWAY OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 24501 lumens  
Efficiency: N/A  
Efficacy: 100.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G2

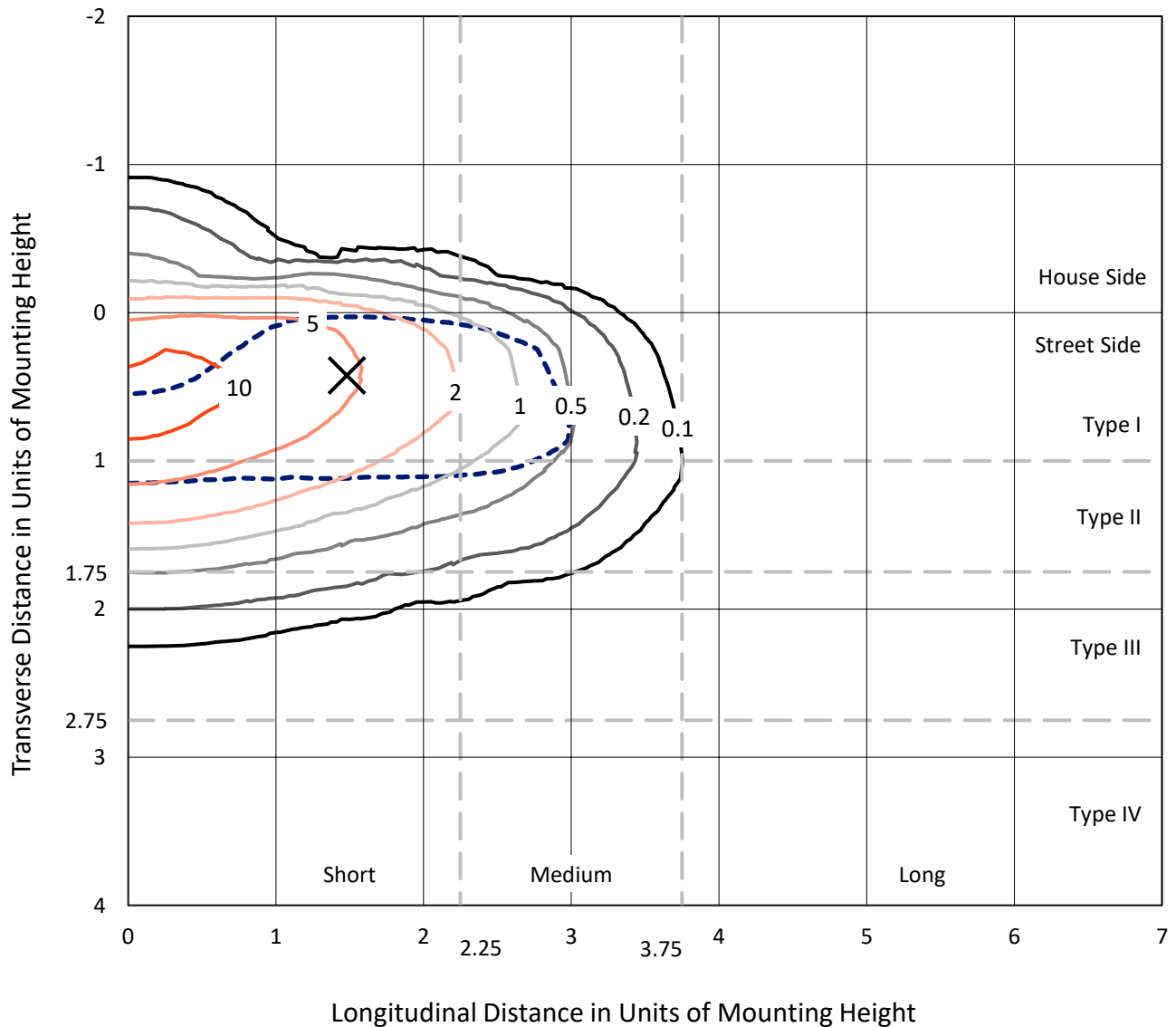
Input Watts (W): 245  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

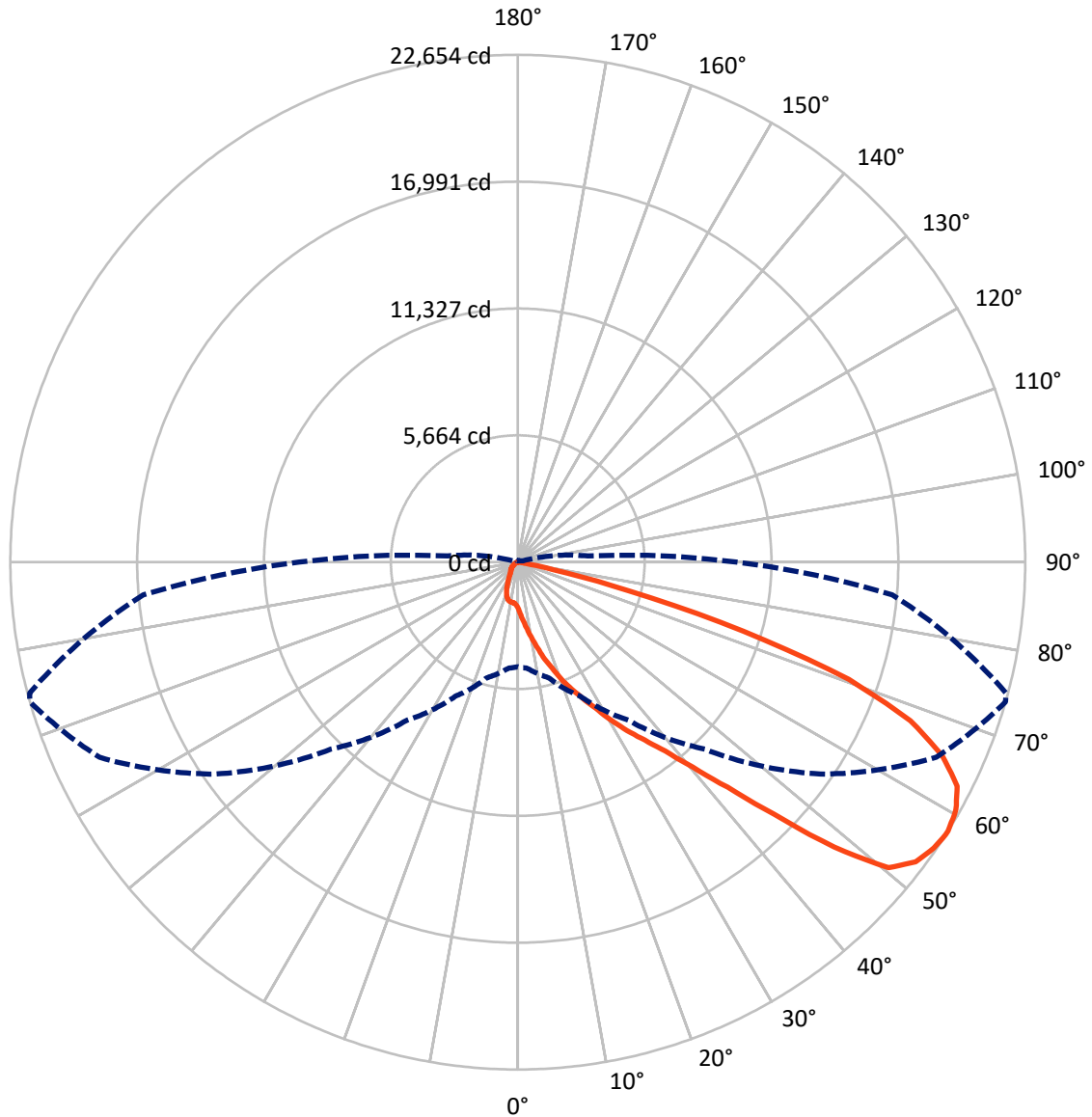
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.4 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 74-Deg Lateral    - - - Horizontal Cone Through 57-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1413.1	0.0	1413.1
	% Fixture	5.8	0.0	5.8
<b>Street Side</b>	Lumens	23087.9	0.0	23087.9
	% Fixture	94.2	0.0	94.2
<b>Total</b>	Lumens	24501.0	0.0	24501.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	247.7	1.0
10°-20°	976.2	4.0
20°-30°	2088.9	8.5
30°-40°	3839.3	15.7
40°-50°	5885.8	24.0
50°-60°	6226.4	25.4
60°-70°	4066.0	16.6
70°-80°	1111.0	4.5
80°-90°	59.8	0.2
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°	24501.0	100.0
0°-180°	24501.0	100.0

**Coefficient of Utilization**



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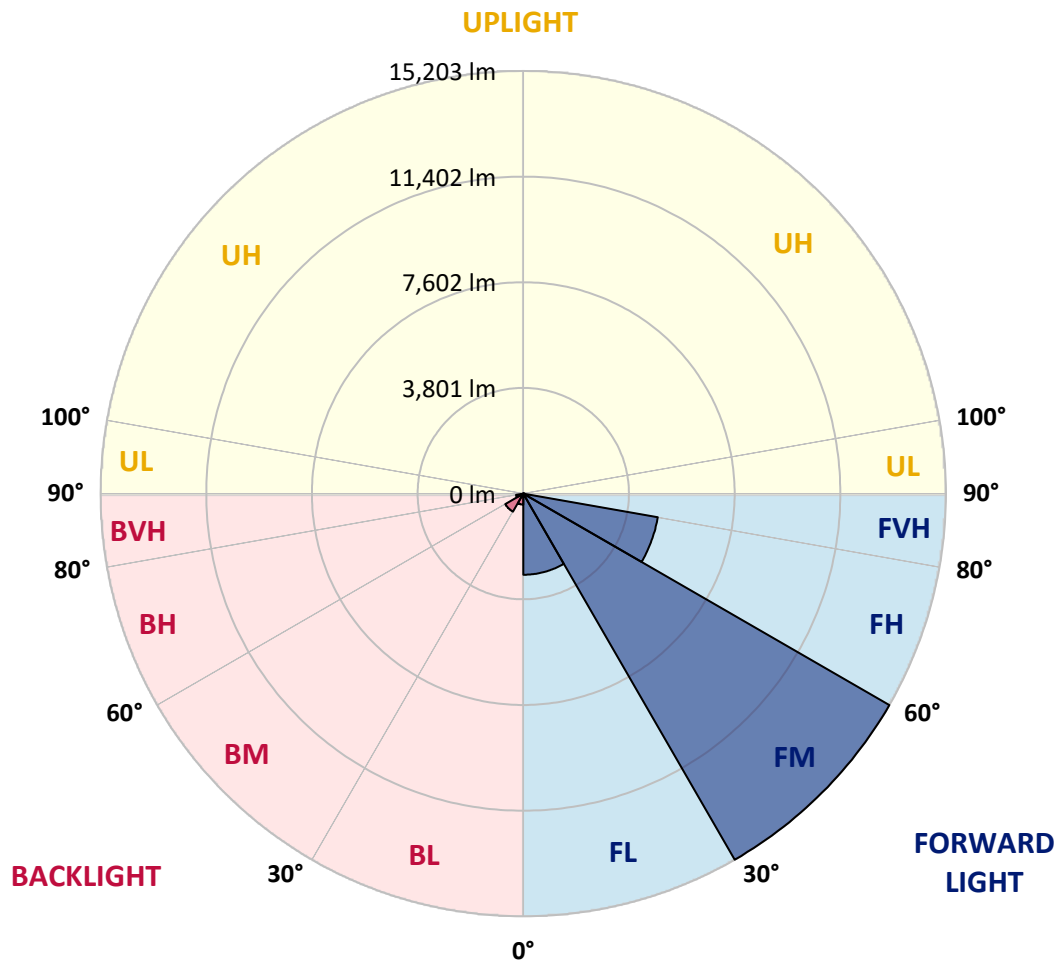
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2918.0	11.9			
FM (30°-60°)	15203.3	62.1			
FH (60°-80°)	4911.6	20.0			G2/5000
FVH (80°-90°)	54.9	0.2			G1/100
BL (0°-30°)	394.7	1.6	B1/500		
BM (30°-60°)	748.2	3.1	B1/1000		
BH (60°-80°)	265.3	1.1	B1/500		G1/500
BVH (80°-90°)	4.9	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	2051.9	2051.9	2051.9	2051.9	2051.9	2051.9	2051.9	2051.9	2051.9	2051.9	2051.9
2.5°	3002.6	2975.5	2921.4	2902.8	2823.3	2699.8	2591.6	2446.1	2331.0	2319.2	2180.5
5°	4021.0	3960.1	3934.7	3812.9	3621.7	3442.4	3134.6	2901.1	2632.2	2611.9	2332.7
7.5°	5002.1	4917.5	4892.1	4777.1	4553.8	4271.3	3872.1	3447.5	3021.2	2982.3	2537.4
10°	5712.6	5724.4	5678.7	5602.6	5421.6	5134.0	4641.8	4061.6	3454.3	3405.2	2767.5
12.5°	6221.8	6220.1	6228.5	6226.8	6130.4	5912.2	5394.6	4726.4	3931.3	3834.9	3031.4
15°	6553.3	6558.4	6583.8	6671.7	6681.9	6546.5	6115.2	5362.4	4484.5	4364.4	3317.3
17.5°	6888.2	6923.8	6964.4	7047.3	7121.7	7067.6	6763.1	6025.5	4985.2	4895.5	3623.4
20°	7441.4	7490.5	7466.8	7517.5	7556.4	7561.5	7326.4	6637.9	5592.5	5441.9	3973.6
22.5°	8326.1	8324.4	8263.5	8172.2	8096.1	8092.7	7879.5	7267.2	6143.9	5998.5	4325.5
25°	9444.3	9449.4	9330.9	9070.4	8881.0	8649.2	8403.9	7818.6	6734.3	6555.0	4695.9
27.5°	10726.5	10694.4	10515.1	10156.4	9780.9	9385.1	9031.5	8459.8	7360.2	7211.3	5120.5
30°	11878.5	11866.7	11656.9	11218.8	10724.8	10327.3	9814.7	9263.3	8170.5	7987.8	5595.9
32.5°	12951.0	12967.9	12676.9	12223.6	11746.6	11288.1	10746.8	10031.3	8965.6	8706.7	6113.5
35°	13788.3	13805.3	13504.1	13126.9	12636.4	12255.7	11739.8	10850.0	9750.5	9532.2	6708.9
37.5°	14234.9	14256.9	14082.7	13798.5	13492.3	13301.2	12820.7	11903.9	10704.5	10572.6	7412.6
40°	14319.5	14344.9	14268.8	14192.6	14175.7	14312.7	14172.3	13145.5	12027.4	11821.0	8461.4
42.5°	14065.8	14099.6	14133.4	14302.6	14647.7	15150.1	15639.0	14830.4	13730.8	13453.4	9743.7
45°	13399.3	13395.9	13529.5	13967.7	14740.7	15813.2	17171.6	16939.8	16051.7	15721.9	11555.4
47.5°	12259.1	12242.2	12531.5	13155.7	14360.1	15935.0	18421.7	19500.9	19013.7	18709.2	13502.5
50°	10521.8	10604.7	11059.8	11930.9	13414.5	15566.2	18807.4	21180.7	21444.6	21121.5	15075.7
52.5°	8486.8	8483.4	9197.3	10379.7	12013.8	14754.3	18538.4	21485.2	22234.6	21987.6	15850.4
55°	6281.0	6324.9	7067.6	8260.1	10195.4	13272.4	17660.4	21172.2	22535.7	22361.4	16361.3
57°	4672.2	4750.0	5345.5	6607.4	8612.0	11805.8	16491.5	20612.3	22654.1	22559.4	16785.9
57.5°	4361.0	4364.4	4944.6	6091.5	8148.5	11242.5	16156.6	20378.9	22650.7	22598.3	16855.2
60°	2684.6	2769.2	3170.1	4117.4	5964.6	8774.4	13911.8	19037.4	22474.8	22550.9	17151.3
62.5°	1607.0	1642.6	1903.1	2481.6	3845.0	6404.4	11384.6	17320.4	22016.3	22248.1	17131.0
65°	1033.6	1042.0	1160.4	1502.2	2403.8	4328.8	8772.7	15052.0	20830.5	21256.8	16461.1
67.5°	798.4	812.0	859.3	986.2	1393.9	2696.4	6204.8	12631.3	18912.2	19462.0	14837.1
70°	708.8	715.6	732.5	773.1	921.9	1522.5	3860.3	9867.2	15682.9	15838.6	11611.2
72.5°	578.5	597.1	649.6	663.1	730.8	950.7	2148.3	6622.7	10537.1	10576.0	6495.8
75°	448.3	451.7	529.5	568.4	615.7	654.7	959.1	3339.2	5061.3	4790.6	2503.6
77.5°	334.9	350.2	385.7	434.7	502.4	468.6	429.7	1258.6	1571.5	1542.8	727.4
80°	214.8	223.3	269.0	326.5	390.8	306.2	241.9	368.8	345.1	355.2	174.2
82.5°	108.3	110.0	172.5	265.6	248.7	153.9	152.2	150.6	128.6	126.9	81.2
85°	11.8	25.4	111.6	152.2	111.6	50.7	71.0	69.4	67.7	69.4	47.4
87.5°	1.7	1.7	18.6	22.0	15.2	16.9	20.3	22.0	27.1	25.4	20.3
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°	2051.9	2051.9	2051.9	2051.9	2051.9	2051.9	2051.9	2051.9	2051.9	2051.9	2051.9
2.5°	2112.8	2045.2	1920.0	1799.9	1710.2	1652.7	1578.3	1551.2	1512.3	1507.2	1488.6
5°	2204.2	2075.6	1857.4	1684.8	1546.1	1441.3	1349.9	1273.8	1212.9	1199.4	1206.1
7.5°	2334.4	2143.3	1838.8	1603.6	1410.8	1231.5	1086.0	996.4	932.1	908.4	911.8
10°	2481.6	2232.9	1835.4	1517.4	1223.0	1003.1	844.1	764.6	727.4	713.9	698.6
12.5°	2655.8	2336.1	1826.9	1383.7	1016.7	800.1	686.8	639.4	603.9	593.8	593.8
15°	2852.1	2446.1	1786.3	1218.0	825.5	661.4	585.3	548.1	536.2	526.1	526.1
17.5°	3056.7	2554.3	1701.8	1013.3	685.1	566.7	519.3	497.3	480.4	468.6	468.6
20°	3290.2	2660.9	1566.4	832.3	578.5	505.8	468.6	443.2	429.7	419.5	416.1
22.5°	3511.8	2747.2	1393.9	683.4	504.1	455.0	421.2	394.1	380.6	375.5	375.5
25°	3741.8	2799.6	1185.8	565.0	460.1	412.8	375.5	353.5	341.7	338.3	336.6
27.5°	3965.1	2830.1	1003.1	494.0	419.5	373.8	338.3	321.4	309.6	306.2	307.9
30°	4235.8	2835.1	825.5	443.2	384.0	336.6	304.5	289.3	282.5	279.1	277.4
32.5°	4509.8	2828.4	693.6	412.8	350.2	304.5	277.4	265.6	260.5	255.4	255.4
35°	4817.7	2792.9	590.4	382.3	318.0	277.4	253.7	243.6	236.8	231.8	230.1
37.5°	5200.0	2774.2	531.2	348.5	289.3	252.1	230.1	219.9	214.8	208.1	206.4
40°	5802.2	2857.1	512.6	318.0	260.5	228.4	208.1	196.2	189.5	182.7	181.0
42.5°	6553.3	3002.6	482.1	287.6	235.1	206.4	186.1	172.5	160.7	152.2	148.9
45°	7526.0	3193.8	434.7	255.4	213.1	182.7	164.1	147.2	131.9	125.2	123.5
47.5°	8546.0	3378.2	392.5	230.1	189.5	162.4	142.1	123.5	110.0	104.9	103.2
50°	9171.9	3415.4	365.4	201.3	165.8	140.4	120.1	103.2	94.7	89.7	89.7
52.5°	9457.8	3356.2	328.2	175.9	143.8	123.5	103.2	89.7	84.6	81.2	79.5
55°	9657.4	3264.8	279.1	152.2	123.5	104.9	91.3	81.2	74.4	71.0	69.4
57°	9774.1	3141.3	241.9	133.6	106.6	91.3	81.2	72.7	66.0	59.2	59.2
57.5°	9779.2	3094.0	231.8	131.9	101.5	88.0	79.5	71.0	62.6	55.8	54.1
60°	9628.7	2769.2	186.1	111.6	81.2	74.4	66.0	55.8	44.0	37.2	35.5
62.5°	9144.9	2356.4	153.9	94.7	66.0	57.5	47.4	42.3	30.4	22.0	22.0
65°	8412.4	1911.5	131.9	76.1	54.1	42.3	32.1	30.4	18.6	10.1	8.5
67.5°	7353.4	1488.6	111.6	62.6	45.7	30.4	22.0	20.3	10.1	3.4	0.0
70°	5602.6	1015.0	93.0	50.7	33.8	22.0	15.2	11.8	6.8	1.7	0.0
72.5°	3229.3	558.2	77.8	38.9	25.4	16.9	11.8	6.8	6.8	0.0	0.0
75°	1153.7	240.2	59.2	28.8	20.3	13.5	8.5	3.4	5.1	1.7	0.0
77.5°	367.1	128.6	38.9	22.0	16.9	10.1	6.8	3.4	3.4	1.7	0.0
80°	108.3	67.7	23.7	18.6	11.8	8.5	5.1	1.7	3.4	1.7	0.0
82.5°	59.2	33.8	18.6	13.5	11.8	6.8	5.1	1.7	1.7	1.7	0.0
85°	30.4	20.3	15.2	13.5	11.8	6.8	5.1	1.7	0.0	1.7	1.7
87.5°	16.9	15.2	15.2	13.5	11.8	8.5	5.1	1.7	0.0	0.0	0.0
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)