

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: P453165

Luminaire Tested: **GALN-SA4A-830-U-T2-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453165
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-11)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA4A-830-U-T2-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10747 lumens
Efficiency: N/A
Efficacy: 88.8 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): 121
Input Voltage (V): NR
Input Current (A_{in}): 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



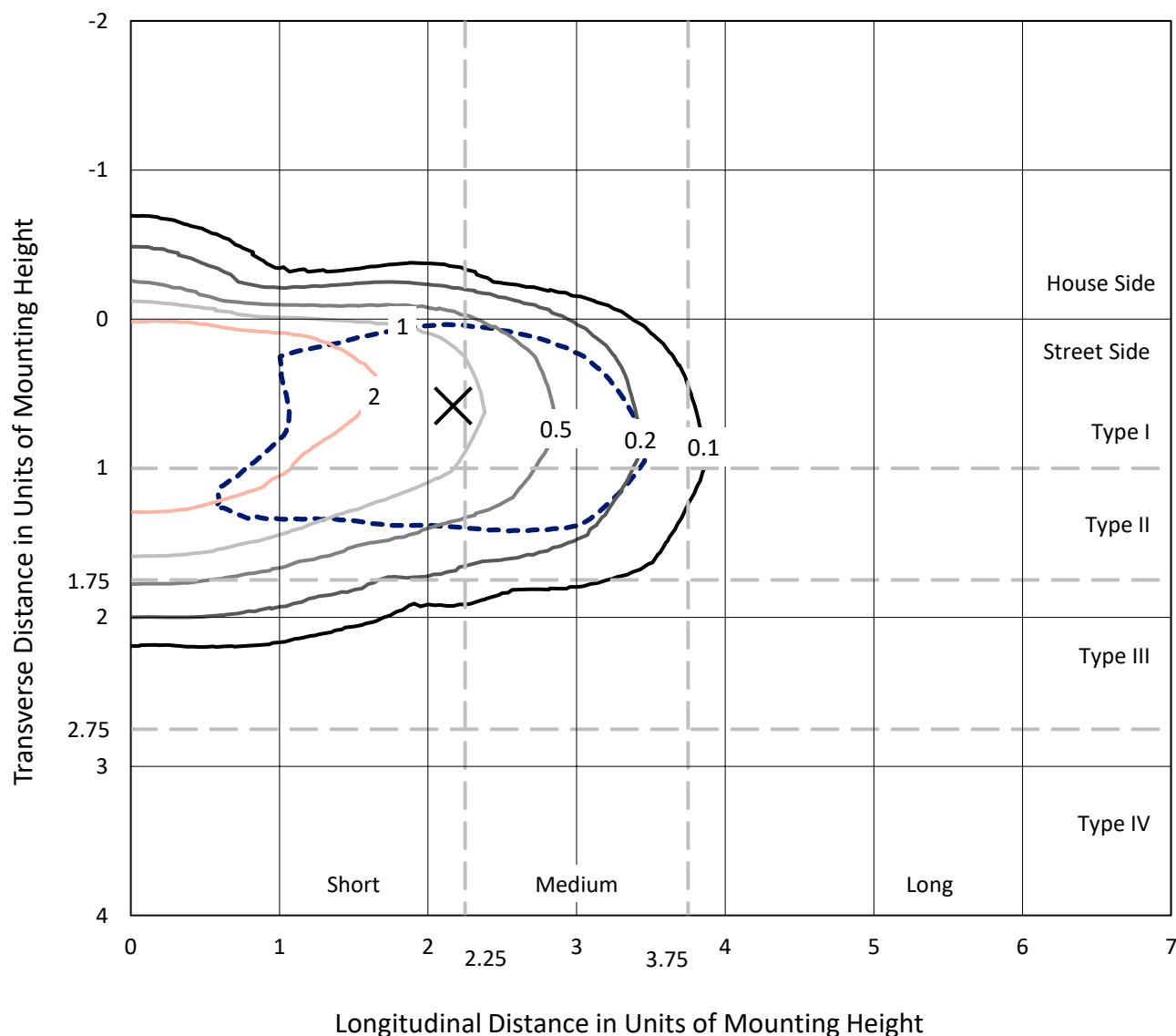
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

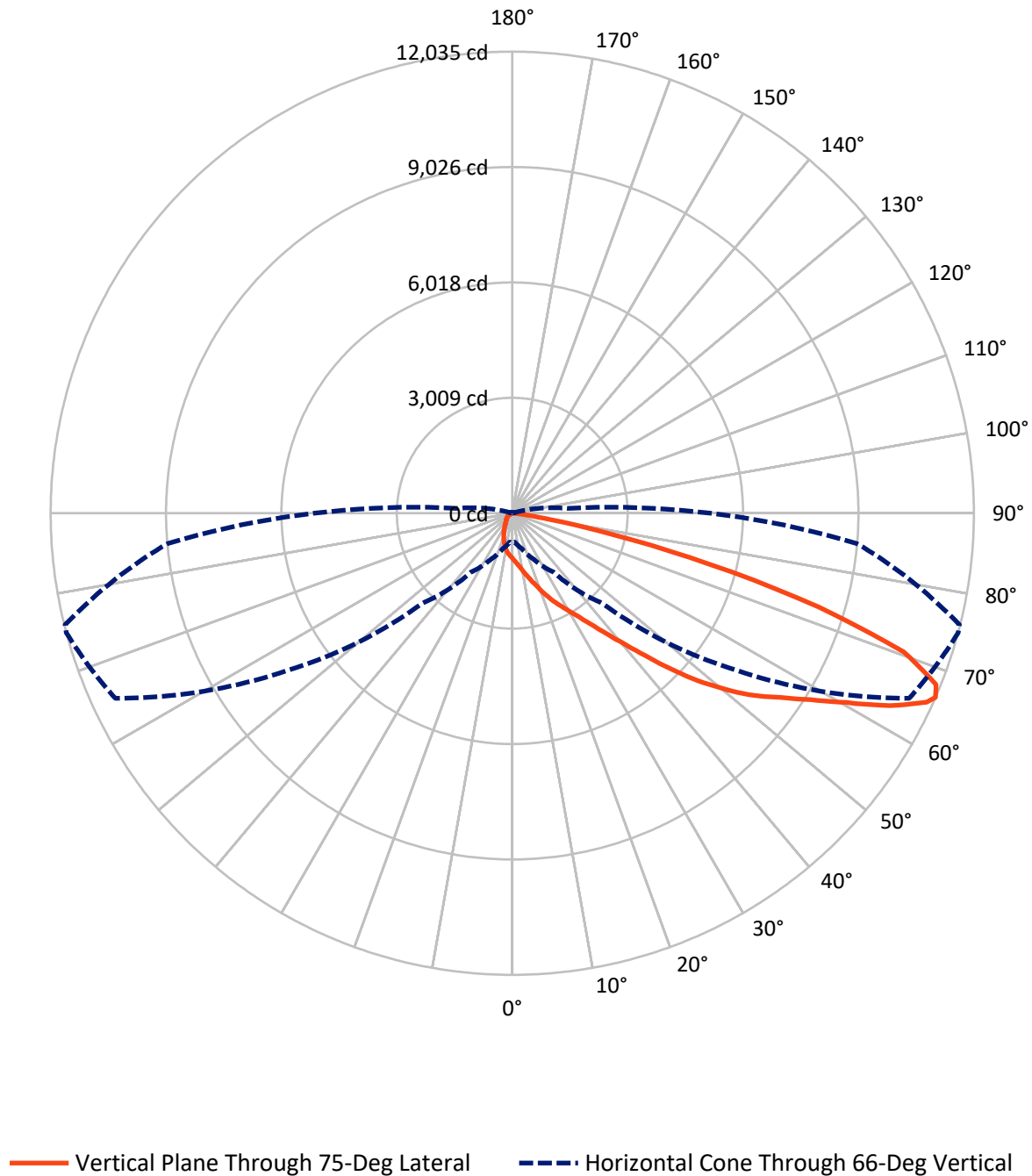
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.2 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	663.5	0.0	663.5
	% Fixture	6.2	0.0	6.2
Street Side	Lumens	10083.5	0.0	10083.5
	% Fixture	93.8	0.0	93.8
Total	Lumens	10747.0	0.0	10747.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.4	1.1
10°-20°	333.6	3.1
20°-30°	576.1	5.4
30°-40°	1039.1	9.7
40°-50°	1877.2	17.5
50°-60°	2926.6	27.2
60°-70°	2780.2	25.9
70°-80°	1041.9	9.7
80°-90°	58.8	0.5
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°	10747.0	100.0
0°-180°	10747.0	100.0

Coefficient of Utilization



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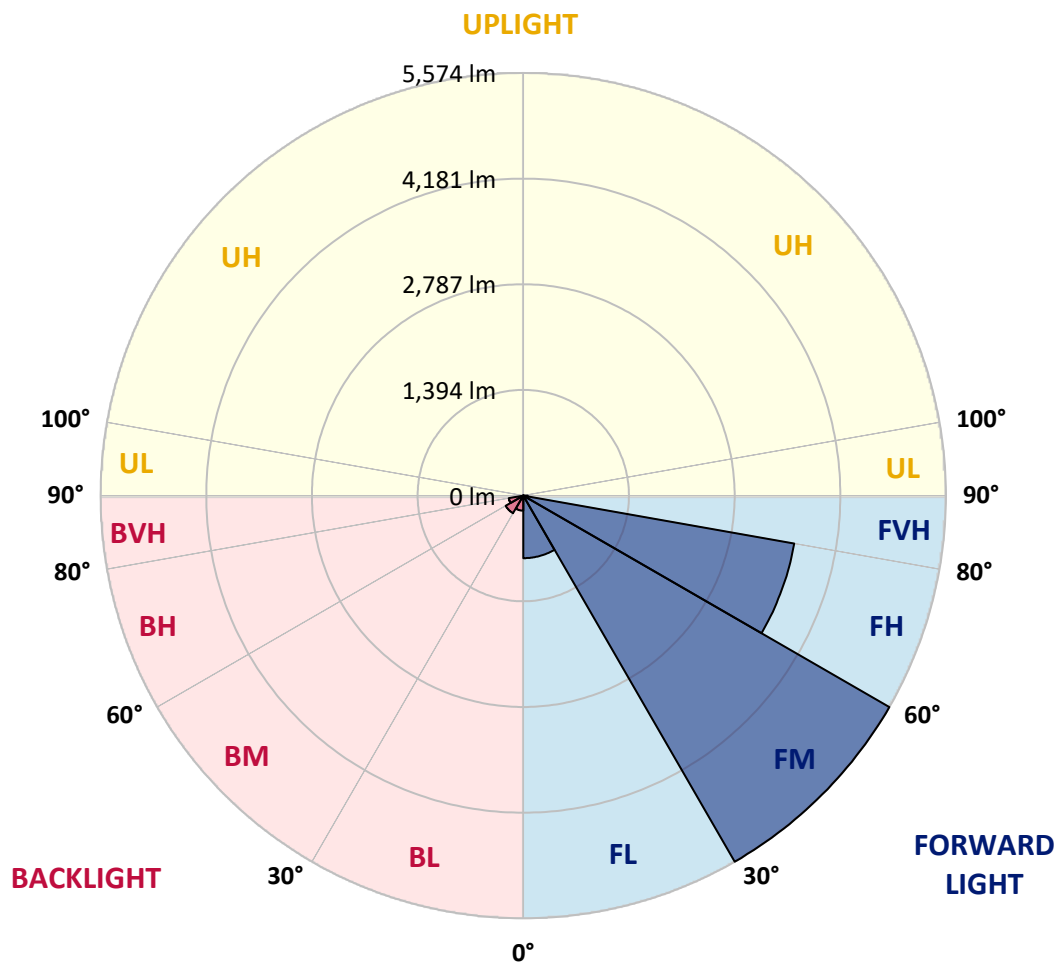
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	824.9	7.7			
FM	(30°-60°)	5574.5	51.9			
FH	(60°-80°)	3628.4	33.8			G2/5000
FVH	(80°-90°)	55.8	0.5			G1/100
BL	(0°-30°)	198.1	1.8	B1/500		
BM	(30°-60°)	268.6	2.5	B1/1000		
BH	(60°-80°)	193.7	1.8	B1/500		G1/500
BVH	(80°-90°)	3.0	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°	75°	76°	85°
0°	1175.3	1175.3	1175.3	1175.3	1175.3	1175.3	1175.3	1175.3	1175.3	1175.3	1175.3
2.5°	1404.2	1386.7	1392.2	1384.3	1366.0	1339.0	1315.1	1281.0	1246.8	1241.2	1203.1
5°	1589.3	1584.5	1578.2	1555.1	1542.4	1501.1	1451.8	1393.0	1322.3	1309.6	1240.5
7.5°	1715.7	1713.3	1716.4	1704.5	1693.4	1656.1	1603.6	1523.3	1413.7	1406.5	1291.3
10°	1757.0	1763.3	1775.3	1794.3	1811.8	1799.9	1760.2	1660.0	1532.1	1511.4	1349.3
12.5°	1733.1	1740.3	1768.9	1819.8	1876.2	1908.8	1892.9	1819.8	1657.6	1641.0	1414.5
15°	1671.9	1680.7	1721.2	1799.9	1900.8	1993.0	2032.7	1980.3	1803.9	1776.8	1493.2
17.5°	1581.4	1594.1	1652.1	1756.2	1894.5	2053.4	2165.4	2147.9	1959.6	1934.2	1579.0
20°	1513.0	1522.6	1571.8	1691.0	1867.4	2086.8	2291.8	2341.0	2151.9	2108.2	1679.9
22.5°	1558.3	1561.5	1578.2	1649.7	1819.0	2095.5	2403.0	2542.1	2356.1	2317.2	1784.8
25°	1780.0	1748.2	1731.5	1715.7	1808.6	2087.6	2503.9	2751.9	2559.6	2518.3	1888.9
27.5°	2129.7	2115.4	2031.1	1918.3	1896.8	2097.9	2570.7	2950.5	2751.1	2706.6	1990.6
30°	2510.3	2485.7	2434.0	2268.7	2102.6	2171.0	2619.2	3143.6	2977.6	2918.8	2083.6
32.5°	2860.0	2875.8	2798.8	2628.7	2436.4	2326.7	2682.0	3354.2	3237.4	3164.3	2191.7
35°	3267.6	3299.4	3181.0	3018.1	2793.2	2608.0	2804.3	3591.8	3567.2	3475.0	2358.5
37.5°	3681.6	3700.7	3628.4	3399.5	3196.9	2965.6	3034.8	3885.1	3973.3	3894.6	2558.0
40°	4029.7	4055.9	4002.7	3799.2	3583.1	3379.7	3369.3	4204.5	4456.4	4375.4	2855.2
42.5°	4295.9	4315.8	4317.3	4173.5	3978.8	3886.6	3796.1	4612.2	5061.9	4968.2	3200.1
45°	4632.0	4660.6	4643.9	4546.2	4400.8	4384.1	4337.2	5104.8	5786.7	5668.3	3647.5
47.5°	5151.7	5170.8	5129.5	5014.3	4866.5	4892.7	4864.9	5657.1	6525.7	6424.0	4110.7
50°	5512.5	5544.3	5603.1	5649.2	5541.9	5445.0	5362.3	6172.9	7227.4	7136.0	4584.3
52.5°	5508.5	5561.0	5746.9	5979.0	6213.4	6184.0	5946.4	6742.6	7897.3	7784.4	5029.4
55°	5137.4	5239.1	5512.5	5924.1	6573.4	6896.8	6788.7	7402.2	8475.8	8399.5	5545.1
57.5°	4371.4	4433.4	4813.2	5388.5	6372.3	7232.1	7764.5	8296.2	9169.5	9133.7	6346.1
60°	2940.2	2968.0	3456.7	4168.0	5425.1	6897.6	8479.7	9377.7	10023.7	10006.3	7281.4
62.5°	1684.7	1696.6	2051.0	2651.0	3860.4	5845.5	8540.1	10711.9	11048.1	11057.6	8363.7
65°	906.7	913.1	1199.1	1555.9	2349.0	4166.4	7679.5	11443.0	11876.1	11894.4	9034.4
66°	782.7	752.5	954.4	1326.3	1869.0	3316.1	7135.2	11416.8	12035.0	12015.1	9010.6
67.5°	595.2	622.2	762.1	1019.5	1385.1	2357.7	5890.8	10909.0	11914.2	11852.2	8644.2
70°	425.9	437.1	542.7	727.1	943.3	1293.7	3764.3	9060.6	10828.7	10745.3	7530.9
72.5°	274.9	286.9	384.6	526.1	681.8	706.4	2107.4	6546.3	8348.6	8336.7	5671.4
75°	196.3	207.4	254.3	376.7	512.6	437.1	1014.8	4411.9	5307.5	5271.7	3508.4
77.5°	142.2	147.8	170.1	246.3	366.3	313.1	470.4	2356.1	2642.2	2767.0	1550.4
80°	81.8	86.6	118.4	150.2	247.9	213.8	224.9	945.6	975.0	928.2	484.7
82.5°	40.5	46.1	70.7	102.5	155.0	143.8	103.3	284.5	300.4	292.4	122.4
85°	9.5	11.9	39.7	67.5	75.5	64.4	50.1	83.4	103.3	100.9	46.9
87.5°	0.8	1.6	14.3	11.9	12.7	21.5	17.5	21.5	33.4	31.0	16.7
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°	1175.3	1175.3	1175.3	1175.3	1175.3	1175.3	1175.3	1175.3	1175.3	1175.3	1175.3
2.5°	1185.6	1170.5	1126.8	1083.9	1048.1	1010.8	976.6	956.8	948.8	940.1	944.0
5°	1202.3	1165.8	1077.5	1001.3	926.6	863.0	812.1	779.6	763.7	761.3	757.3
7.5°	1224.6	1161.8	1025.1	905.9	808.2	737.4	679.4	632.5	618.2	605.5	595.2
10°	1251.6	1154.6	959.9	805.8	701.7	612.7	536.4	480.8	452.2	444.2	449.8
12.5°	1280.2	1141.1	891.6	713.6	593.6	480.0	409.2	381.4	373.5	370.3	371.1
15°	1308.8	1124.4	820.1	624.6	472.8	383.0	350.4	343.3	340.1	338.5	336.9
17.5°	1335.0	1097.4	739.8	538.0	383.0	327.4	315.5	309.1	302.8	300.4	296.4
20°	1366.0	1066.4	667.5	441.0	324.2	296.4	282.1	270.2	260.6	254.3	253.5
22.5°	1395.4	1026.7	592.0	365.5	295.6	266.2	243.2	230.4	219.3	211.4	213.8
25°	1411.3	978.2	524.5	318.7	269.4	236.0	210.6	194.7	182.8	178.8	178.0
27.5°	1411.3	918.6	458.5	291.6	245.5	209.0	182.8	167.7	159.7	154.2	155.0
30°	1400.2	852.7	397.3	271.0	224.9	185.2	160.5	147.0	140.7	136.7	135.9
32.5°	1391.4	789.9	344.9	251.1	203.4	164.5	143.0	132.7	126.3	122.4	122.4
35°	1404.9	735.8	304.4	231.2	183.6	148.6	129.5	120.0	113.6	110.5	109.7
37.5°	1440.7	686.6	273.4	209.8	165.3	135.1	120.0	108.9	102.5	98.5	96.9
40°	1528.9	658.8	250.3	189.9	147.8	124.0	108.9	98.5	90.6	86.6	85.8
42.5°	1670.4	659.6	228.1	171.6	134.3	114.4	99.3	87.4	78.7	74.7	73.9
45°	1883.3	689.8	210.6	154.2	122.4	104.1	89.0	76.3	68.3	64.4	64.4
47.5°	2138.4	748.6	195.5	139.1	111.3	94.6	78.7	66.0	58.0	54.8	54.8
50°	2414.9	824.8	180.4	123.2	101.7	84.2	67.5	57.2	50.9	48.5	48.5
52.5°	2697.0	917.0	165.3	110.5	91.4	73.1	58.0	50.9	45.3	43.7	42.9
55°	3067.4	1034.6	149.4	96.9	80.3	62.8	51.7	44.5	38.1	35.8	35.0
57.5°	3637.1	1211.8	131.9	85.0	66.0	52.4	44.5	37.3	30.2	26.2	25.4
60°	4324.5	1428.0	113.6	74.7	53.2	42.9	35.8	28.6	22.3	17.5	16.7
62.5°	4968.2	1565.5	96.2	62.8	42.1	32.6	25.4	21.5	15.9	11.1	10.3
65°	5252.7	1519.4	79.5	50.9	33.4	23.0	16.7	15.1	9.5	4.8	4.0
66°	5158.1	1451.0	73.1	46.1	30.2	19.9	14.3	12.7	7.2	2.4	2.4
67.5°	4879.2	1289.7	63.6	39.7	26.2	15.9	11.1	9.5	4.0	0.8	0.0
70°	4180.7	1043.4	50.1	29.4	19.1	11.1	6.4	4.8	2.4	0.0	0.0
72.5°	3211.2	777.2	39.7	22.3	13.5	6.4	3.2	1.6	2.4	0.0	0.0
75°	1967.6	444.2	31.0	16.7	8.7	4.0	2.4	0.0	2.4	0.8	0.0
77.5°	873.3	199.5	20.7	11.1	6.4	3.2	1.6	0.0	1.6	0.8	0.0
80°	220.9	65.2	11.9	7.9	4.8	2.4	0.8	0.0	1.6	1.6	0.8
82.5°	60.4	23.8	8.7	6.4	4.0	2.4	0.8	0.0	1.6	1.6	1.6
85°	23.8	11.1	7.9	6.4	4.8	2.4	0.8	0.0	1.6	1.6	1.6
87.5°	11.1	7.9	7.9	7.2	5.6	2.4	0.8	0.0	1.6	0.8	1.6
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)