

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: P647416

Luminaire Tested: **GALN-SA4D-835-U-T4W-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P647416
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-27)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA4D-835-U-T4W-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 3500K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17334.1 lumens
Efficiency: N/A
Efficacy: 70.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G3

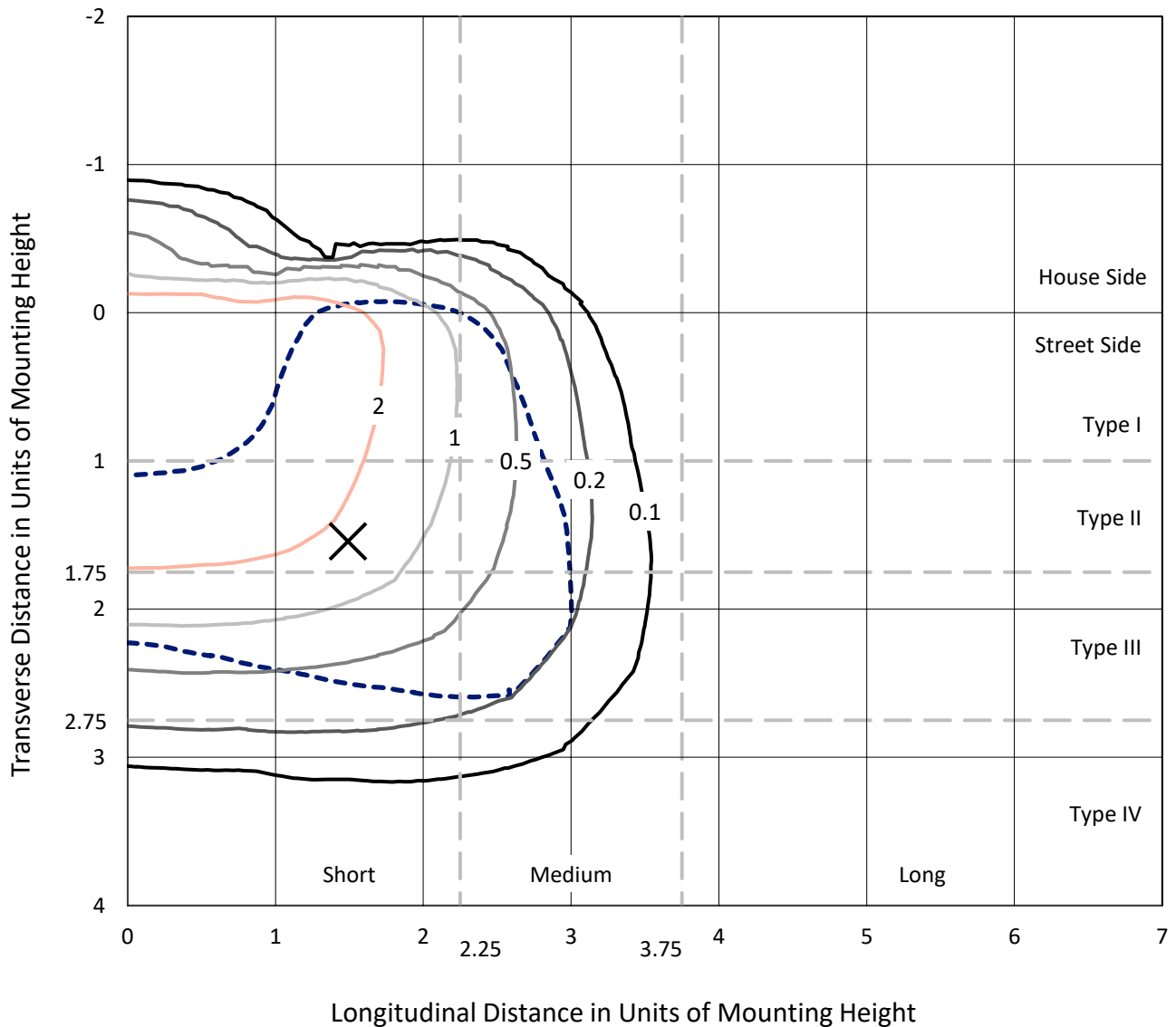
Input Watts (W): 245
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

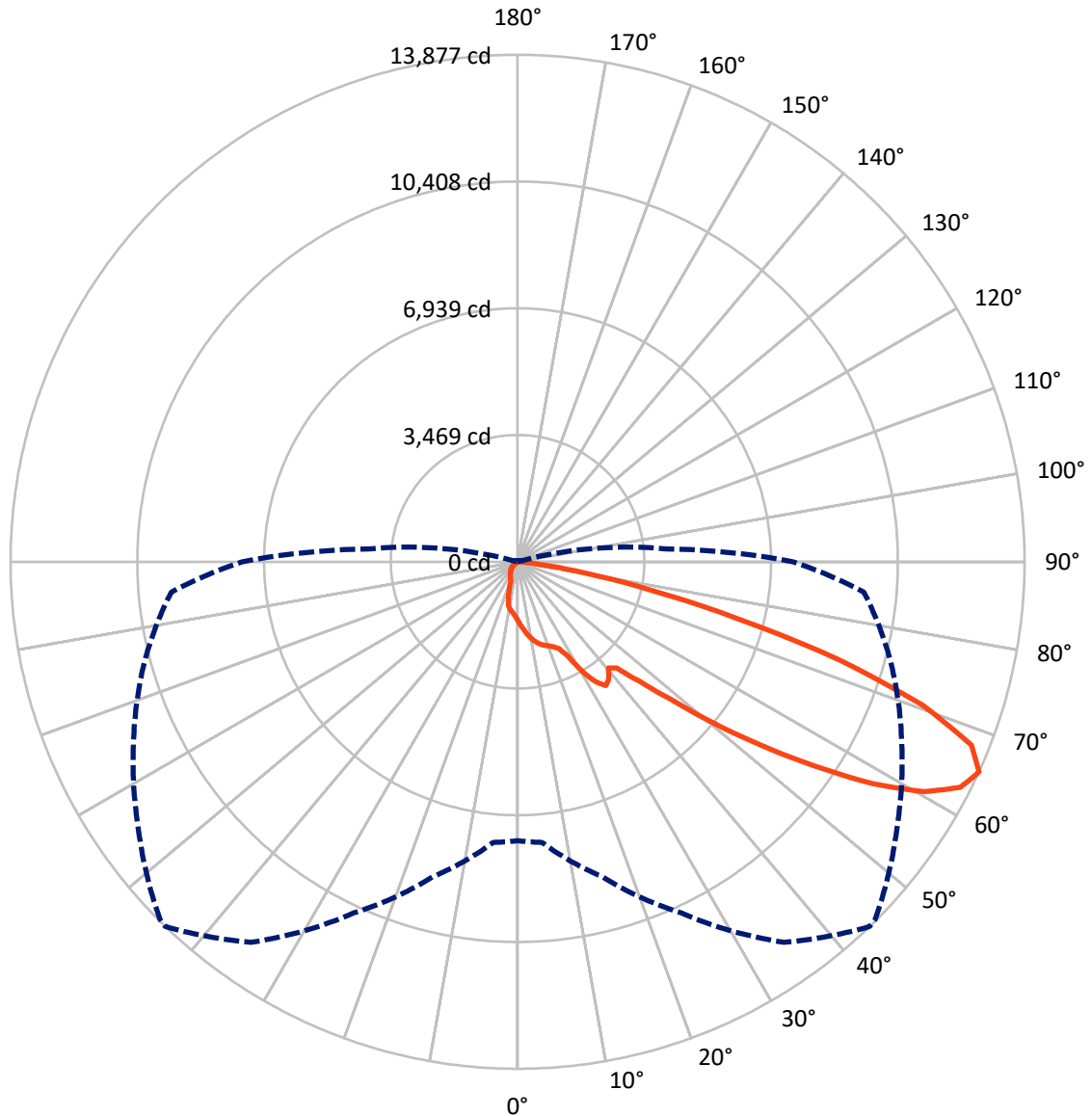
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.7 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 44-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1597.1	0.0	1597.1
	% Fixture	9.2	0.0	9.2
Street Side	Lumens	15737.0	0.0	15737.0
	% Fixture	90.8	0.0	90.8
Total	Lumens	17334.1	0.0	17334.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.5	0.9
10°-20°	482.9	2.8
20°-30°	818.9	4.7
30°-40°	1361.5	7.9
40°-50°	2377.2	13.7
50°-60°	4644.2	26.8
60°-70°	5388.4	31.1
70°-80°	1962.2	11.3
80°-90°	138.3	0.8
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°	17334.1	100.0
0°-180°	17334.1	100.0



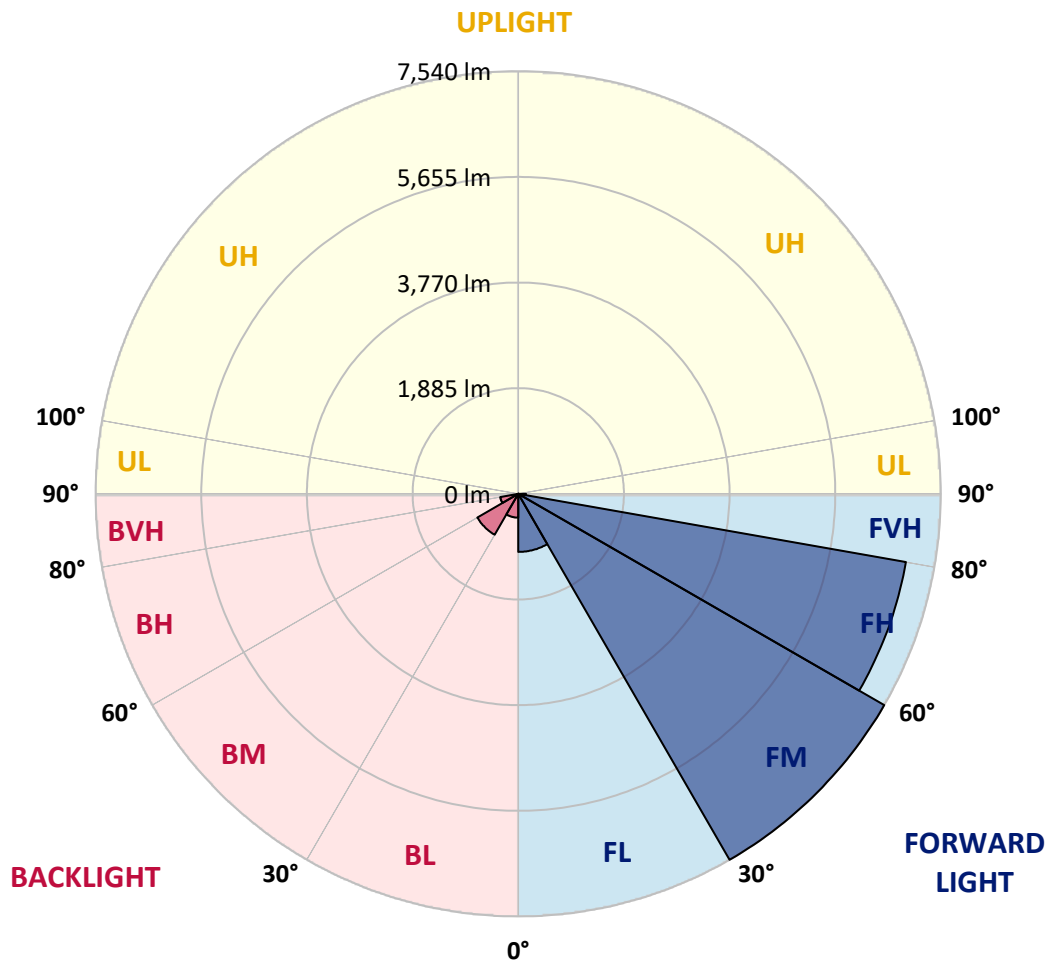
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1036.7	6.0			
FM (30°-60°)	7540.3	43.5			
FH (60°-80°)	7023.5	40.5			G3/7500
FVH (80°-90°)	136.4	0.8			G2/225
BL (0°-30°)	425.5	2.5	B1/500		
BM (30°-60°)	842.6	4.9	B1/1000		
BH (60°-80°)	327.1	1.9	B1/500		G1/500
BVH (80°-90°)	1.9	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-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	1613.3	1613.3	1613.3	1613.3	1613.3	1613.3	1613.3	1613.3	1613.3	1613.3	1613.3
2.5°	1815.9	1808.0	1804.0	1782.8	1766.9	1747.0	1747.0	1721.9	1692.8	1661.0	1631.9
5°	2018.6	2005.3	1988.1	1969.6	1932.5	1879.5	1879.5	1826.5	1765.6	1711.3	1651.7
7.5°	2213.3	2201.4	2172.2	2136.5	2075.6	2019.9	2015.9	1939.1	1866.3	1784.1	1699.3
10°	2384.2	2374.9	2349.7	2280.9	2217.3	2144.4	2143.1	2057.0	1972.2	1871.6	1766.9
12.5°	2503.4	2504.7	2471.6	2405.4	2323.2	2254.3	2249.1	2164.3	2075.6	1966.9	1838.5
15°	2588.1	2588.1	2553.7	2479.5	2405.4	2344.5	2339.1	2265.0	2173.5	2055.7	1916.6
17.5°	2612.0	2619.9	2582.9	2516.6	2457.0	2404.0	2402.7	2340.5	2267.6	2153.7	1996.1
20°	2602.7	2610.7	2581.6	2529.9	2488.8	2458.3	2454.4	2429.2	2361.7	2254.3	2080.8
22.5°	2582.9	2590.8	2569.6	2539.1	2519.3	2528.5	2521.9	2543.1	2507.3	2377.5	2181.5
25°	2586.8	2594.8	2578.9	2561.7	2578.9	2635.8	2653.0	2744.4	2712.6	2533.9	2290.1
27.5°	2711.3	2727.2	2704.7	2712.6	2773.5	2906.0	2939.1	3096.8	2956.4	2732.5	2459.6
30°	2988.2	2977.6	2935.2	2973.6	3185.5	3466.3	3457.0	3431.9	3212.0	2961.7	2661.0
32.5°	3239.8	3230.6	3227.9	3393.4	3777.6	3914.0	3907.4	3663.7	3441.1	3223.9	2859.7
35°	3341.8	3306.1	3298.1	3699.4	4341.8	4161.7	4120.6	3759.0	3719.3	3510.0	3062.3
37.5°	3649.1	3624.0	3500.7	3749.8	4116.6	4057.0	4025.2	3923.3	4016.0	3763.0	3291.5
40°	4282.2	4212.0	4100.7	3857.1	3797.5	3822.6	3854.4	4133.8	4367.0	4108.7	3597.4
42.5°	5069.0	5053.1	4846.5	4392.2	3945.8	3980.2	4021.3	4573.6	4871.7	4629.3	4096.8
45°	6013.4	6035.9	5737.9	5201.5	4616.0	4645.1	4704.7	5222.6	5555.1	5438.6	4882.2
47.5°	6871.7	6854.5	6753.8	6196.2	5655.8	5590.9	5687.6	6055.8	6500.8	6519.3	5857.1
50°	7735.3	7826.7	7677.0	7458.5	7057.1	6920.7	6884.9	7065.1	7743.2	7654.5	7028.0
52.5°	8976.4	9024.1	8743.3	8687.6	8779.0	8336.6	8300.9	8344.6	8951.2	8646.6	7904.9
55°	9756.5	9728.7	9624.1	10058.5	10420.1	9867.8	9822.7	9646.6	9953.9	9347.2	8748.5
57.5°	10002.9	10042.6	10286.3	11071.8	11927.4	11458.6	11376.4	10875.8	10677.1	10000.2	9524.7
60°	9893.0	9965.8	10491.7	11659.9	12846.7	12776.4	12706.3	11865.2	11196.3	10545.9	10069.1
62.5°	9110.1	9212.2	10053.3	11555.3	13157.9	13596.3	13508.9	12482.4	11542.0	10810.9	10164.5
65°	7634.6	7710.1	8918.1	10605.6	12715.5	13877.2	13845.4	12675.8	11596.3	10568.5	9511.5
67.5°	5442.5	5699.5	6818.7	8937.9	11406.9	13397.7	13451.9	12444.0	11086.3	9520.7	7877.0
70°	3421.2	3596.1	4398.8	6398.8	9144.6	11753.9	11932.8	11383.0	9621.4	7421.4	5273.0
72.5°	1631.9	1761.6	2333.8	4050.5	6454.4	9247.9	9389.7	9344.6	7439.9	4675.6	2720.6
75°	727.2	776.2	1113.9	2067.6	4167.0	6216.1	6582.9	6643.8	4649.1	2287.5	1058.3
77.5°	370.9	372.2	521.9	1001.4	2080.8	3708.7	3781.6	3994.8	2520.6	1008.0	368.2
80°	197.4	210.6	276.8	472.9	1079.5	1826.5	1817.3	1997.4	1117.9	494.1	123.2
82.5°	88.7	98.0	156.3	247.7	527.2	692.7	747.1	817.2	479.5	315.2	54.3
85°	26.5	31.8	76.8	124.5	190.7	200.0	223.9	288.8	271.5	223.9	27.8
87.5°	4.0	4.0	31.8	34.5	27.8	35.8	37.1	41.0	87.4	82.1	14.6
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°	1613.3	1613.3	1613.3	1613.3	1613.3	1613.3	1613.3	1613.3	1613.3	1613.3	1613.3
2.5°	1616.0	1606.6	1573.5	1545.7	1521.9	1507.4	1490.1	1479.5	1474.2	1470.2	1471.6
5°	1622.5	1600.1	1543.1	1498.0	1463.6	1426.5	1401.3	1386.8	1380.2	1369.5	1369.5
7.5°	1659.6	1623.9	1544.4	1475.6	1415.9	1365.6	1317.9	1300.7	1288.7	1286.2	1283.5
10°	1712.7	1667.6	1559.0	1463.6	1378.9	1310.0	1242.4	1182.8	1136.4	1108.6	1104.7
12.5°	1778.8	1714.0	1581.5	1455.7	1347.1	1225.2	1046.4	925.8	845.1	819.9	823.9
15°	1839.8	1769.6	1604.0	1449.0	1288.7	1015.9	813.3	675.5	634.5	630.5	631.8
17.5°	1912.6	1829.2	1630.5	1439.8	1128.5	776.2	604.0	566.9	574.9	588.1	586.8
20°	1988.1	1892.7	1662.3	1384.1	900.7	584.1	533.8	537.8	549.7	561.6	564.2
22.5°	2068.9	1965.6	1699.3	1250.4	687.4	508.6	506.0	511.3	523.2	536.4	539.1
25°	2180.2	2057.0	1727.2	1075.5	520.5	470.2	475.5	484.8	495.4	510.0	512.6
27.5°	2323.2	2180.2	1741.8	847.7	450.3	435.7	437.1	450.3	463.6	476.8	476.8
30°	2508.7	2327.2	1712.7	641.0	415.9	402.7	397.4	405.3	422.5	435.7	437.1
32.5°	2674.3	2466.3	1635.8	490.1	390.7	372.2	358.9	360.3	366.9	374.8	376.2
35°	2839.8	2601.4	1504.7	411.9	364.3	343.0	323.2	312.6	307.3	303.3	307.3
37.5°	3051.7	2769.6	1329.8	374.8	341.7	315.2	287.4	264.9	246.3	234.4	237.1
40°	3324.6	3002.7	1123.2	351.0	320.6	288.8	251.7	222.5	190.7	180.2	174.8
42.5°	3774.9	3356.4	906.0	331.1	299.3	260.9	214.5	174.8	145.7	135.1	137.7
45°	4486.2	3802.7	698.0	309.9	278.1	230.4	180.2	137.7	113.9	108.6	111.3
47.5°	5429.2	4380.3	537.8	286.1	251.7	197.4	141.7	108.6	94.0	92.7	91.4
50°	6316.7	4918.0	449.1	259.6	219.9	164.3	116.6	91.4	82.1	80.8	80.8
52.5°	7119.3	5303.4	365.6	229.1	185.4	135.1	98.0	80.8	72.8	68.9	68.9
55°	7833.3	5555.1	296.7	192.1	145.7	107.3	84.8	72.8	63.6	58.3	56.9
57.5°	8372.4	5585.5	222.5	153.6	108.6	83.5	72.8	63.6	53.0	46.4	43.7
60°	8602.8	5322.0	164.3	116.6	80.8	66.2	58.3	51.7	39.7	33.1	31.8
62.5°	8371.1	4809.4	121.8	88.7	62.2	49.0	41.0	38.4	27.8	19.9	18.6
65°	7540.6	4068.9	96.7	67.6	46.4	35.8	26.5	25.1	17.2	9.2	7.9
67.5°	6041.2	3186.8	76.8	50.3	33.1	23.8	17.2	15.9	9.2	2.7	2.7
70°	3928.5	2037.1	62.2	37.1	21.2	15.9	10.6	7.9	5.3	1.3	0.0
72.5°	1943.1	952.4	50.3	29.1	14.6	7.9	4.0	2.7	4.0	0.0	0.0
75°	753.6	339.1	37.1	19.9	7.9	4.0	2.7	0.0	1.3	0.0	0.0
77.5°	250.3	112.6	22.6	10.6	5.3	2.7	0.0	0.0	0.0	0.0	0.0
80°	92.7	43.7	11.9	6.7	2.7	1.3	0.0	0.0	0.0	0.0	0.0
82.5°	37.1	17.2	7.9	5.3	2.7	0.0	0.0	0.0	0.0	0.0	0.0
85°	18.6	10.6	5.3	4.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	13.2	7.9	5.3	4.0	2.7	1.3	0.0	0.0	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)