

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: P453142

Luminaire Tested: **GALN-SA4A-827-U-T3R-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453142
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-9)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA4A-827-U-T3R-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10412 lumens
Efficiency: N/A
Efficacy: 86.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

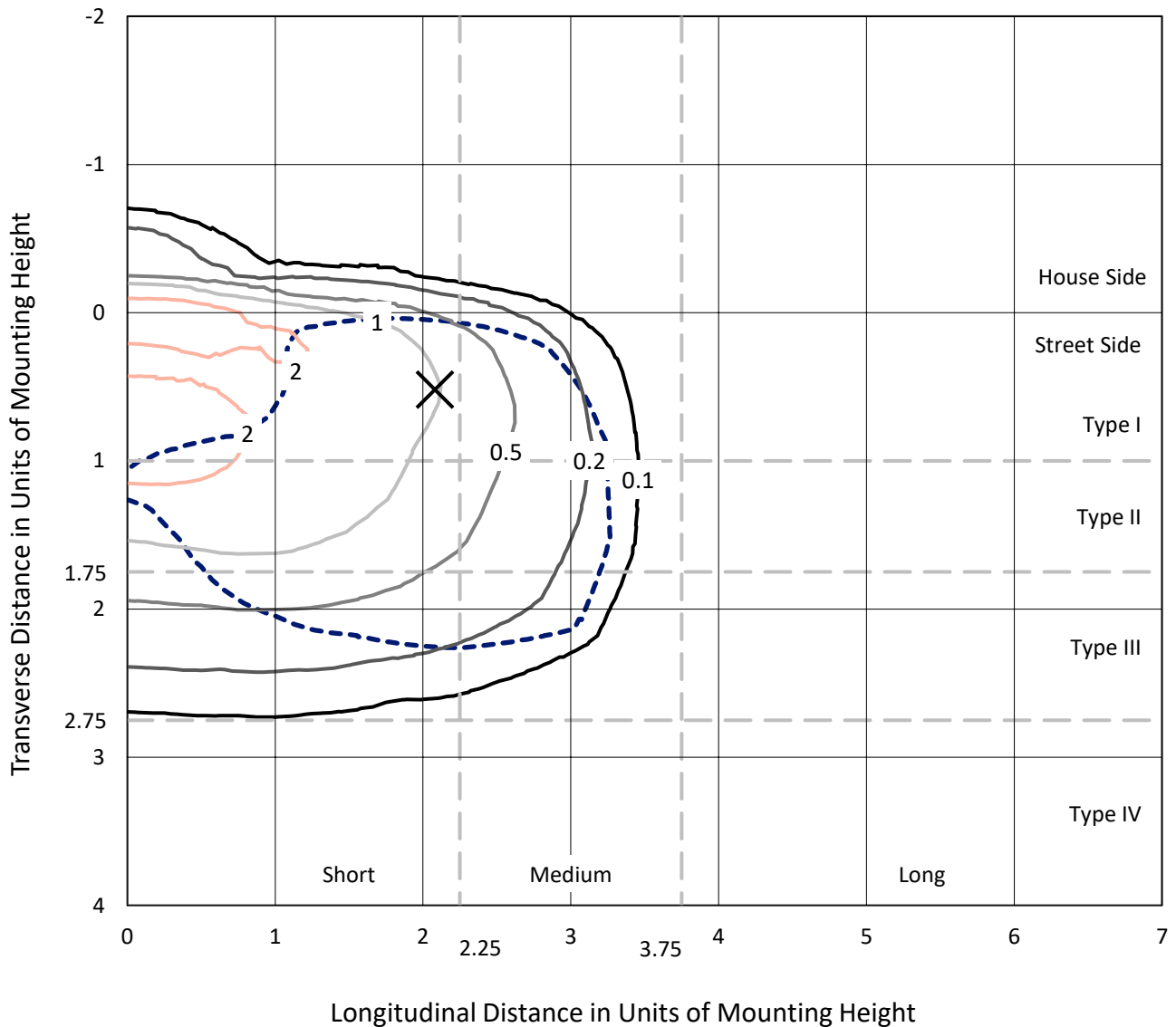
Input Watts (W): 121
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

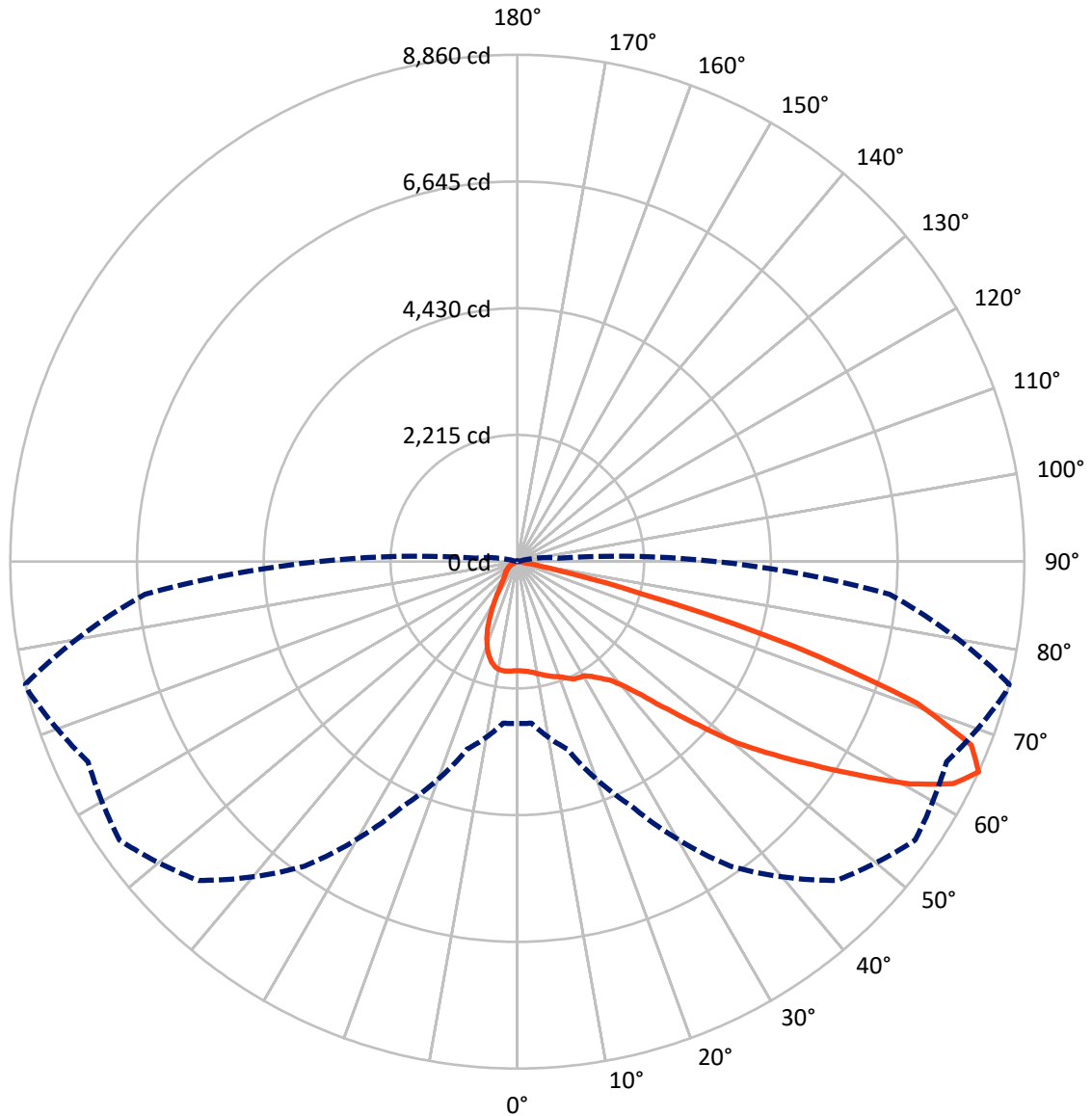
× Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 76-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	752.0	0.0	752.0
	% Fixture	7.2	0.0	7.2
Street Side	Lumens	9660.0	0.0	9660.0
	% Fixture	92.8	0.0	92.8
Total	Lumens	10412.0	0.0	10412.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	156.9	1.5
10°-20°	349.4	3.4
20°-30°	563.0	5.4
30°-40°	978.8	9.4
40°-50°	1617.5	15.5
50°-60°	2498.6	24.0
60°-70°	3051.2	29.3
70°-80°	1158.0	11.1
80°-90°	38.6	0.4
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°	10412.0	100.0
0°-180°	10412.0	100.0

Coefficient of Utilization



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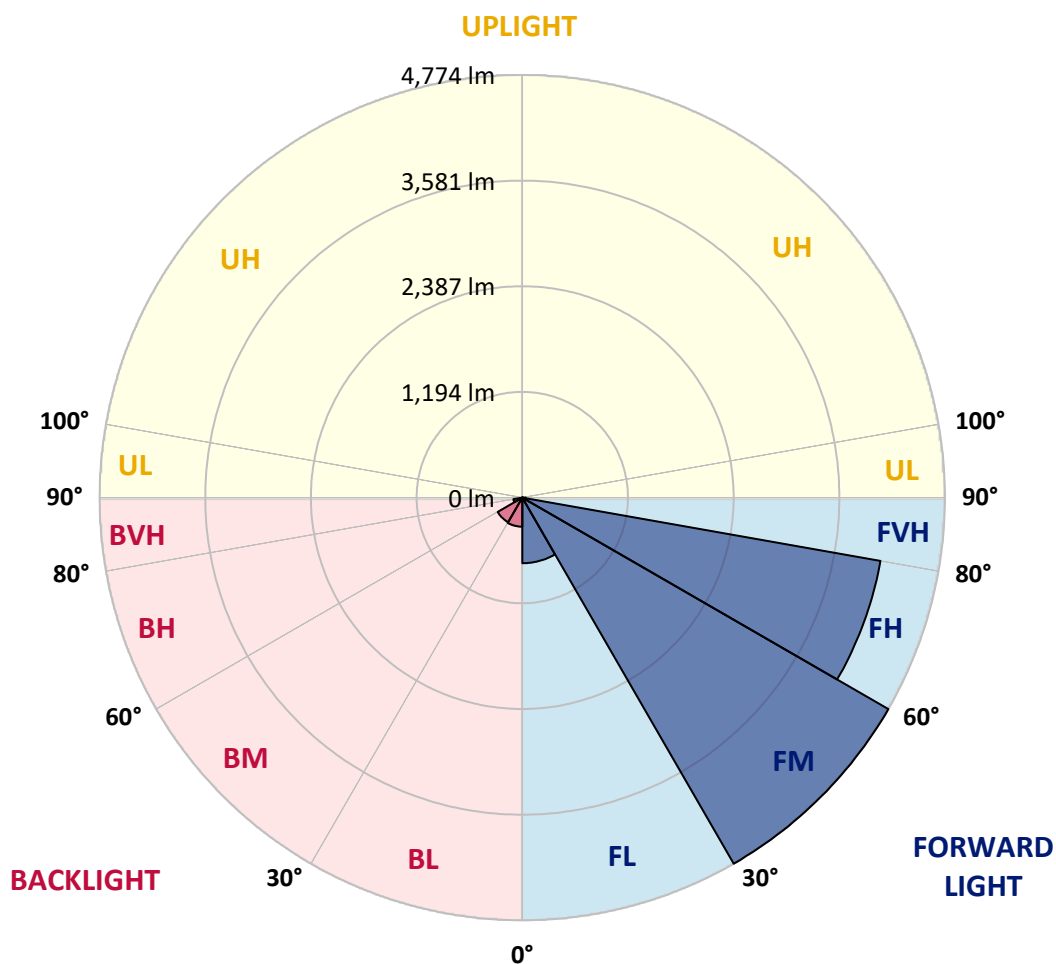
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	740.7	7.1			
FM (30°-60°)	4774.1	45.9			
FH (60°-80°)	4107.2	39.4			G2/5000
FVH (80°-90°)	38.1	0.4			G1/100
BL (0°-30°)	328.5	3.2	B1/500		
BM (30°-60°)	320.9	3.1	B1/1000		
BH (60°-80°)	102.0	1.0	B0/110		G0/110
BVH (80°-90°)	0.5	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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	1904.7	1904.7	1904.7	1904.7	1904.7	1904.7	1904.7	1904.7	1904.7	1904.7	1904.7
2.5°	1820.1	1820.9	1825.3	1836.3	1853.2	1867.2	1879.0	1898.1	1911.3	1912.8	1917.2
5°	1694.4	1685.6	1694.4	1723.1	1748.8	1787.8	1835.6	1883.4	1926.0	1928.9	1949.5
7.5°	1553.3	1560.7	1574.6	1604.0	1652.5	1712.1	1781.2	1866.5	1947.3	1954.7	1995.1
10°	1410.0	1426.1	1448.9	1493.8	1561.4	1638.6	1732.7	1854.7	1981.1	1991.4	2061.3
12.5°	1277.6	1285.0	1312.9	1373.2	1457.0	1565.8	1695.9	1848.1	2018.6	2031.1	2131.8
15°	1176.2	1185.7	1210.0	1264.4	1357.8	1497.4	1665.8	1845.9	2055.4	2073.0	2202.4
17.5°	1157.1	1163.0	1173.2	1210.0	1291.6	1443.0	1638.6	1845.1	2090.7	2112.0	2267.8
20°	1235.7	1230.6	1220.3	1216.6	1261.5	1401.1	1618.7	1851.0	2124.5	2148.7	2336.9
22.5°	1432.7	1439.4	1379.1	1307.8	1293.1	1394.5	1615.8	1879.0	2178.2	2206.8	2414.1
25°	1851.0	1800.3	1706.2	1535.7	1407.0	1434.9	1648.9	1945.1	2240.6	2272.2	2484.0
27.5°	2313.4	2298.0	2151.7	1870.9	1631.2	1520.2	1707.7	1995.8	2261.2	2293.6	2523.7
30°	2767.7	2786.1	2618.5	2308.3	1956.9	1678.3	1762.8	2015.0	2279.6	2313.4	2574.4
32.5°	3188.9	3211.0	3064.0	2756.7	2340.6	1951.7	1857.6	2089.2	2356.8	2391.3	2658.9
35°	3520.5	3523.4	3412.4	3167.6	2759.6	2284.0	2062.7	2219.3	2461.2	2501.6	2748.6
37.5°	3824.8	3820.4	3690.3	3479.3	3108.8	2614.1	2320.8	2369.3	2580.3	2622.2	2878.0
40°	4050.5	4053.4	4011.5	3813.0	3434.5	2919.1	2525.1	2509.7	2780.2	2845.6	3066.2
42.5°	4201.2	4228.4	4249.0	4148.3	3843.9	3294.8	2839.0	2810.4	3127.2	3181.6	3332.3
45°	4323.2	4371.7	4474.7	4469.5	4237.2	3755.7	3269.8	3211.0	3619.0	3677.1	3671.2
47.5°	4412.2	4461.4	4632.0	4734.9	4607.0	4202.7	3811.6	3760.9	4206.3	4269.6	4045.3
50°	4457.7	4516.6	4734.2	4933.4	4895.9	4633.4	4429.1	4432.0	4915.7	4976.7	4479.1
52.5°	4351.2	4427.6	4788.5	5147.3	5220.1	5045.8	5007.6	5104.6	5547.2	5599.4	4870.9
55°	4010.8	4107.1	4714.3	5329.6	5595.7	5532.5	5664.8	5812.6	6237.5	6271.3	5273.0
57.5°	3795.4	3897.6	4495.2	5484.7	6047.1	6144.1	6353.6	6461.7	6949.8	7035.8	5734.6
60°	3613.8	3694.0	4315.1	5517.8	6505.8	6892.5	7096.1	7207.8	7829.0	7884.9	6242.6
62.5°	3311.7	3403.6	4010.8	5287.0	6736.6	7491.6	7913.5	7863.5	8509.0	8547.9	6554.3
65°	2825.8	2833.9	3393.3	4707.0	6498.4	7880.4	8487.7	8278.1	8833.9	8860.4	6530.0
67.5°	2109.0	2187.0	2610.4	3699.8	5489.1	7548.2	8673.6	8289.2	8628.8	8555.3	6011.8
70°	1358.5	1418.0	1769.4	2565.6	3957.9	6299.2	8056.9	7720.9	7573.2	7410.0	4920.9
72.5°	627.1	703.5	1051.2	1465.8	2347.2	4487.2	6540.3	6272.7	5450.9	5048.0	3127.9
75°	273.5	292.6	519.0	773.3	1100.5	2373.0	4312.2	3893.9	2461.9	2248.7	1251.9
77.5°	166.9	179.4	272.0	414.6	432.2	904.2	2323.0	1698.9	760.8	671.2	339.6
80°	113.2	127.2	197.7	216.9	147.8	252.1	871.8	453.6	153.6	147.0	72.8
82.5°	55.1	69.8	146.3	121.3	64.0	80.9	253.6	97.0	44.8	41.9	25.7
85°	8.1	14.0	82.3	79.4	28.7	19.1	44.8	24.3	15.4	14.7	11.8
87.5°	0.0	0.0	27.9	12.5	2.9	2.9	5.1	5.1	5.9	5.1	5.9
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°	1904.7	1904.7	1904.7	1904.7	1904.7	1904.7	1904.7	1904.7	1904.7	1904.7	1904.7
2.5°	1919.4	1923.1	1909.1	1889.2	1867.9	1846.6	1816.5	1789.3	1773.1	1782.7	1759.1
5°	1953.9	1951.0	1914.2	1854.0	1773.8	1677.5	1582.0	1500.4	1473.9	1434.2	1429.8
7.5°	2001.7	1993.6	1915.7	1777.5	1596.7	1415.8	1239.4	1122.5	1055.6	999.0	1000.5
10°	2068.6	2045.1	1898.8	1643.0	1345.3	1072.5	847.6	693.2	626.3	605.0	588.1
12.5°	2137.7	2092.1	1851.8	1461.4	1047.5	732.9	515.3	421.2	380.1	366.8	365.4
15°	2199.5	2127.4	1769.4	1243.1	761.6	468.3	351.4	320.5	315.4	316.1	315.4
17.5°	2260.5	2155.4	1655.5	1011.5	517.5	335.9	302.1	294.8	297.0	299.9	299.2
20°	2311.2	2161.2	1509.9	771.9	366.1	294.8	283.8	282.3	284.5	286.7	286.7
22.5°	2366.3	2165.7	1337.2	534.4	299.2	274.2	268.3	268.3	271.3	274.2	274.9
25°	2407.5	2141.4	1130.6	383.7	263.9	254.4	251.4	252.1	255.1	256.6	255.8
27.5°	2414.1	2073.0	911.5	294.0	239.6	230.1	227.2	230.1	226.4	228.6	227.2
30°	2420.0	1986.3	689.5	247.7	217.6	202.9	198.5	194.1	191.1	187.5	186.7
32.5°	2438.4	1884.1	503.6	222.7	197.0	180.8	170.5	158.1	148.5	145.6	144.8
35°	2446.5	1761.3	369.8	202.9	178.6	161.0	142.6	125.0	111.0	105.9	109.5
37.5°	2477.3	1642.3	286.7	188.2	162.5	140.4	116.9	94.8	81.6	78.7	80.1
40°	2540.6	1512.9	240.4	175.7	148.5	121.3	92.6	71.3	62.5	59.5	58.8
42.5°	2642.0	1384.2	213.9	163.9	134.5	102.2	72.8	55.9	48.5	46.3	46.3
45°	2765.5	1260.7	195.5	151.4	119.8	82.3	57.3	44.8	40.4	39.0	39.0
47.5°	2928.0	1152.7	180.1	138.9	103.7	65.4	46.3	39.0	36.0	36.8	37.5
50°	3092.6	1072.5	163.2	125.0	85.3	53.7	39.7	34.6	33.8	34.6	34.6
52.5°	3216.9	1025.5	140.4	105.9	66.9	44.8	35.3	32.3	31.6	30.1	30.1
55°	3384.5	1015.2	111.7	86.0	52.9	37.5	31.6	29.4	27.2	25.7	25.0
57.5°	3599.9	1027.0	86.0	66.9	41.2	30.9	27.9	24.3	21.3	18.4	18.4
60°	3733.7	1000.5	66.9	51.5	30.1	25.0	21.3	17.6	14.0	11.8	11.0
62.5°	3691.0	888.8	52.9	38.2	21.3	18.4	14.0	11.8	8.1	5.9	5.1
65°	3471.2	717.5	42.6	26.5	15.4	11.0	7.4	7.4	3.7	0.7	0.0
67.5°	3038.2	531.5	33.8	17.6	8.8	5.1	3.7	2.2	0.0	0.0	0.0
70°	2472.9	383.7	26.5	11.0	5.1	3.7	1.5	0.7	0.0	0.0	0.0
72.5°	1570.2	219.8	20.6	6.6	3.7	1.5	0.0	0.0	0.0	0.0	0.0
75°	607.2	86.0	14.0	4.4	1.5	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	172.0	40.4	8.1	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	44.8	17.6	4.4	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	21.3	7.4	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	12.5	2.9	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	5.9	0.7	0.0	0.0	0.0	0.0	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)