

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: P299584

Luminaire Tested: **GLNA-AF-02-LED-E1-SL2-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299584
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24287)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-02-LED-E1-SL2-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
w/Spill Control WITH HOUSESIDE SHEILD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9162.8 lumens
Efficiency: N/A
Efficacy: 81.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G2

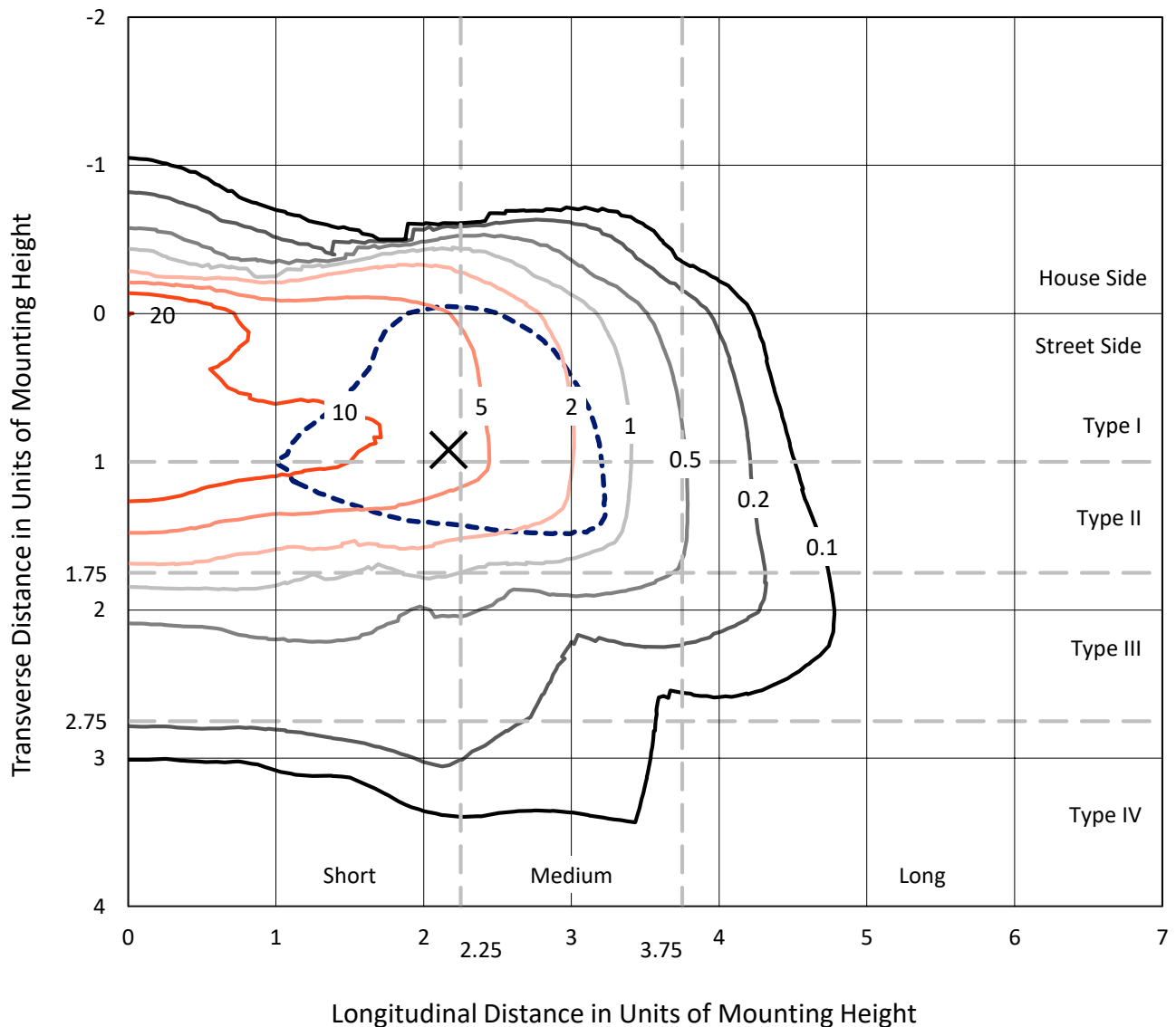
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

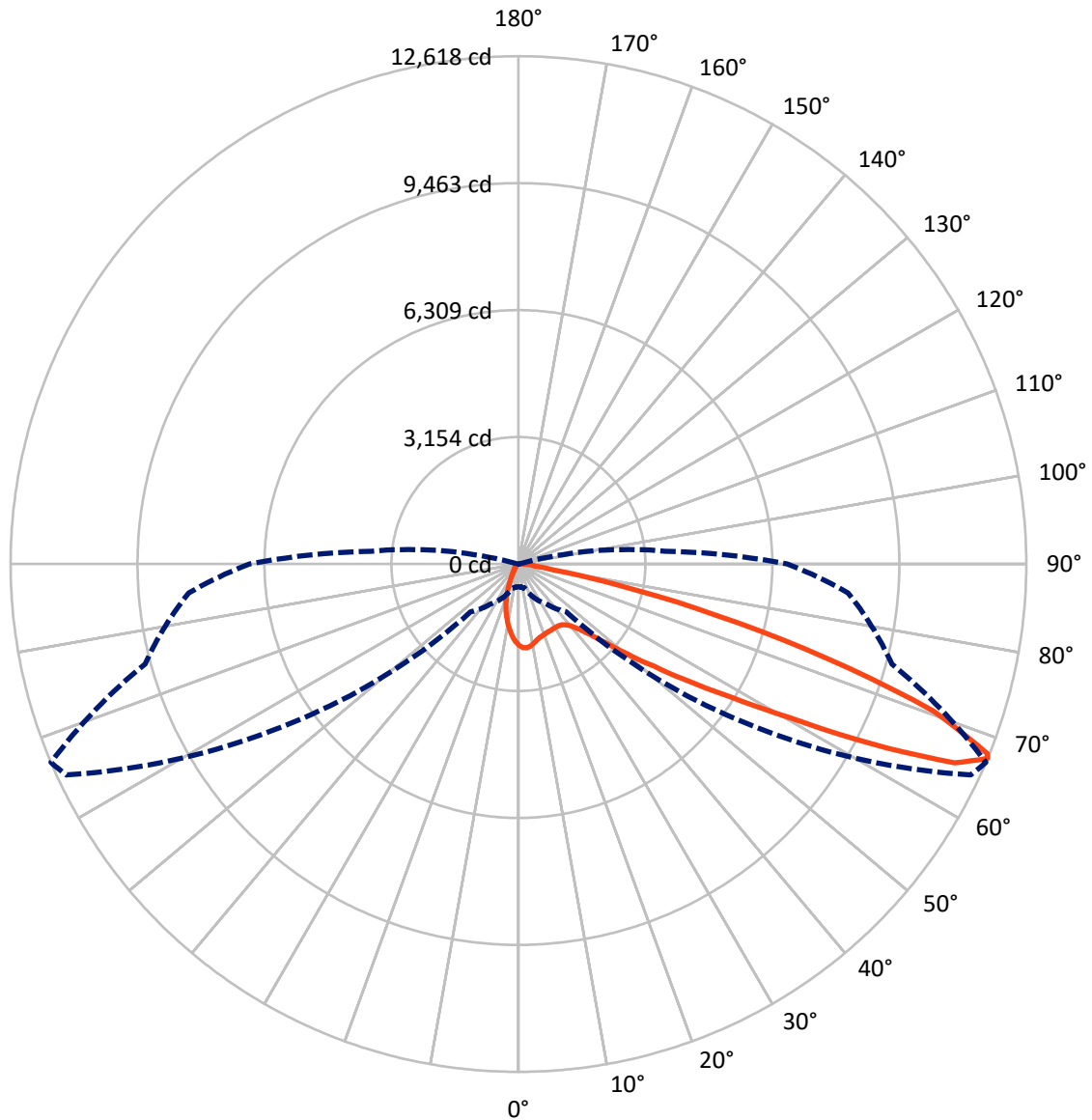
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 20.2 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	951.4	0.0	951.4
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	8211.4	0.0	8211.4
	% Fixture	89.6	0.0	89.6
Total	Lumens	9162.8	0.0	9162.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	164.4	1.8
10°-20°	350.0	3.8
20°-30°	508.8	5.6
30°-40°	793.8	8.7
40°-50°	1406.1	15.3
50°-60°	2225.0	24.3
60°-70°	2548.5	27.8
70°-80°	1057.1	11.5
80°-90°	109.2	1.2
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°	9162.8	100.0
0°-180°	9162.8	100.0



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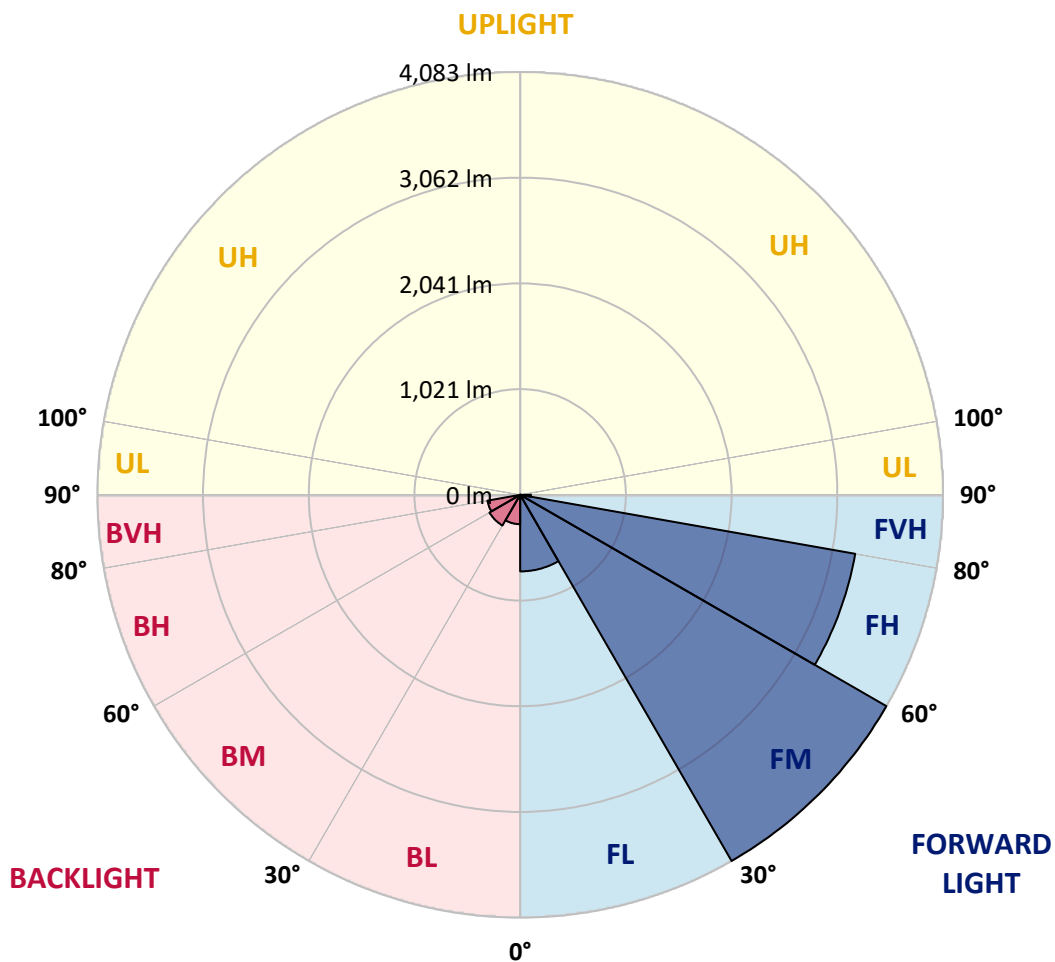
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	739.3	8.1			
FM (30°-60°)	4083.0	44.6			
FH (60°-80°)	3284.9	35.9			G2/5000
FVH (80°-90°)	104.3	1.1			G2/225
BL (0°-30°)	283.9	3.1	B1/500		
BM (30°-60°)	341.9	3.7	B1/1000		
BH (60°-80°)	320.6	3.5	B1/500		G1/500
BVH (80°-90°)	4.9	0.1			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°	67°	75°	85°
0°	2020.7	2020.7	2020.7	2020.7	2020.7	2020.7	2020.7	2020.7	2020.7	2020.7	2020.7
2.5°	2089.1	2093.4	2092.9	2096.1	2103.6	2104.1	2096.6	2082.2	2079.0	2060.3	2027.7
5°	1926.7	1939.0	1946.4	1976.9	2011.1	2052.3	2083.3	2094.5	2092.9	2079.5	2030.4
7.5°	1741.2	1753.5	1762.1	1797.9	1843.3	1913.8	1994.5	2060.8	2066.7	2081.1	2028.2
10°	1617.8	1619.9	1631.7	1665.9	1713.4	1785.6	1881.8	1997.8	2015.4	2068.3	2022.9
12.5°	1516.2	1517.8	1533.3	1570.2	1621.0	1693.7	1794.7	1928.8	1956.1	2052.3	2021.8
15°	1444.1	1449.9	1463.8	1502.3	1556.3	1628.5	1732.1	1878.0	1910.6	2046.4	2031.4
17.5°	1420.0	1426.4	1430.7	1458.5	1507.7	1578.2	1684.6	1844.9	1881.8	2049.6	2050.1
20°	1445.1	1449.9	1440.3	1447.3	1477.7	1540.8	1644.5	1816.6	1860.4	2053.3	2074.2
22.5°	1538.7	1540.8	1514.6	1484.2	1478.8	1513.5	1613.0	1794.1	1841.2	2063.5	2102.5
25°	1699.0	1695.3	1652.5	1586.8	1524.8	1508.7	1594.2	1780.2	1831.5	2074.2	2131.9
27.5°	1892.5	1897.8	1839.0	1743.4	1625.2	1540.8	1591.6	1774.4	1827.3	2081.7	2157.6
30°	2127.6	2135.1	2067.8	1947.5	1778.1	1619.9	1616.2	1773.3	1824.6	2076.9	2159.7
32.5°	2367.6	2376.7	2323.8	2199.8	1982.3	1752.4	1671.7	1785.0	1829.9	2060.3	2147.4
35°	2618.8	2631.6	2596.3	2490.0	2259.1	1943.8	1769.5	1820.9	1855.1	2058.7	2135.1
37.5°	2965.6	2977.4	2911.1	2798.4	2594.2	2200.3	1926.7	1888.2	1914.4	2084.3	2138.3
40°	3483.5	3481.9	3310.9	3138.3	2962.4	2526.3	2147.4	2010.0	2023.4	2161.8	2177.9
42.5°	4047.9	4045.2	3792.4	3530.0	3371.3	2927.7	2437.6	2220.6	2211.5	2304.5	2280.5
45°	4482.9	4482.4	4276.1	3980.5	3863.5	3388.4	2812.8	2513.5	2499.6	2536.5	2469.7
47.5°	4668.4	4671.6	4567.9	4360.0	4409.2	4011.5	3285.8	2937.8	2917.0	2902.0	2800.5
50°	4524.1	4530.5	4539.0	4498.4	4809.5	4849.0	3920.2	3535.9	3525.7	3458.9	3300.2
52.5°	4052.7	4085.3	4185.8	4314.6	4948.4	5652.8	4914.8	4278.8	4224.3	4153.2	3978.4
55°	3258.5	3294.3	3485.1	3797.8	4741.6	6180.9	6308.6	5236.5	5145.6	4933.5	4681.2
57.5°	2156.5	2212.1	2488.9	2886.5	4140.9	6265.8	7699.2	6565.7	6249.3	5668.3	5384.0
60°	1188.1	1241.5	1541.9	1902.1	2990.8	5845.8	8634.5	8296.2	7737.2	6489.8	6237.5
62.5°	731.7	760.5	982.3	1317.4	1793.6	4613.9	8828.0	10470.8	9823.6	7547.4	7268.5
65°	582.5	594.8	703.3	1076.9	1285.9	2744.4	8203.2	12128.7	11912.8	8828.0	8191.4
67°	565.4	570.3	621.6	924.6	1212.1	1682.4	6872.4	12398.6	12617.7	9602.9	8220.3
67.5°	569.2	574.5	623.2	882.4	1210.0	1546.1	6413.9	12292.2	12569.1	9664.4	8092.6
70°	548.9	565.4	713.5	881.8	1150.7	1284.8	3841.1	10650.4	10938.5	8979.7	6866.6
72.5°	194.5	195.6	308.4	713.5	1251.1	1298.7	1928.8	7807.7	8021.0	6869.2	4950.6
75°	115.4	98.3	102.6	203.1	1195.6	1261.3	1112.7	4989.0	5068.7	3936.2	2507.1
77.5°	79.6	69.5	71.6	89.8	455.3	1243.7	884.0	2601.7	2516.7	1380.5	533.9
80°	45.4	40.1	42.8	78.6	165.7	1160.3	833.7	1055.0	899.5	234.1	147.5
82.5°	24.1	20.3	24.6	64.7	115.4	723.1	835.3	509.9	404.0	79.1	100.5
85°	8.6	6.9	11.8	44.4	77.0	221.8	774.4	428.6	336.7	38.5	76.4
87.5°	1.6	1.6	4.8	18.2	31.0	67.9	458.0	254.4	170.5	23.0	52.4
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°	2020.7	2020.7	2020.7	2020.7	2020.7	2020.7	2020.7	2020.7	2020.7	2020.7	2020.7
2.5°	2014.3	1991.3	1960.3	1922.4	1877.5	1838.0	1808.6	1778.1	1771.7	1761.0	1759.4
5°	2001.0	1961.4	1884.5	1796.3	1702.2	1617.2	1548.3	1486.8	1459.6	1436.1	1433.4
7.5°	1981.2	1921.9	1790.9	1648.8	1501.8	1368.2	1254.9	1174.7	1101.0	1065.7	1060.3
10°	1958.2	1873.2	1685.6	1488.4	1285.3	1096.7	928.3	787.2	701.7	651.0	644.5
12.5°	1936.8	1825.7	1578.2	1322.2	1052.3	800.1	583.6	448.9	359.1	322.8	318.5
15°	1926.7	1787.2	1477.7	1152.3	808.6	509.3	319.1	246.9	217.5	209.0	208.4
17.5°	1925.6	1754.6	1379.4	976.4	566.5	296.1	207.9	189.7	183.8	181.7	181.7
20°	1925.1	1723.6	1281.1	794.2	359.7	197.2	173.2	168.9	164.6	161.9	161.9
22.5°	1931.0	1695.8	1178.5	608.2	226.6	159.8	152.3	148.0	142.7	139.0	138.4
25°	1936.8	1674.4	1073.7	432.9	164.1	139.0	131.5	125.6	118.1	113.3	112.8
27.5°	1937.9	1647.7	961.5	289.7	137.4	121.3	111.7	102.6	94.1	89.3	88.7
30°	1921.9	1602.8	836.9	195.6	121.3	105.3	92.5	82.8	74.8	71.1	71.1
32.5°	1890.3	1547.2	700.1	147.5	108.0	90.3	76.4	67.3	62.0	60.4	59.9
35°	1862.0	1487.4	559.6	125.1	96.7	76.4	62.5	56.7	53.4	52.9	52.4
37.5°	1845.4	1439.3	427.6	113.3	86.0	64.1	52.9	48.6	47.0	46.0	46.5
40°	1858.3	1399.2	315.9	103.7	75.4	53.4	44.9	42.8	41.2	40.6	40.6
42.5°	1914.4	1392.2	234.6	95.1	65.2	44.4	39.0	37.4	36.3	35.8	36.3
45°	2061.9	1435.0	182.2	87.1	55.0	37.4	33.1	32.6	32.1	32.1	32.1
47.5°	2283.7	1523.2	151.8	78.0	46.0	32.1	28.9	28.3	27.8	28.3	28.3
50°	2659.4	1684.6	135.7	68.9	37.9	27.3	24.6	24.6	24.6	24.6	25.1
52.5°	3230.7	2002.0	125.1	59.9	31.0	23.0	20.8	20.8	21.4	21.4	21.9
55°	3867.2	2423.2	115.4	50.8	26.2	19.2	17.1	17.6	18.2	18.7	18.7
57.5°	4557.7	2889.7	107.4	41.7	22.4	15.5	14.4	15.0	15.5	16.6	16.6
60°	5390.9	3394.8	95.7	32.6	18.7	12.3	11.2	12.3	13.9	15.0	15.5
62.5°	6305.9	3883.3	80.7	25.7	15.5	9.6	9.1	11.2	13.4	14.4	15.0
65°	6931.2	4036.7	62.0	20.8	11.8	6.9	7.5	10.2	12.8	14.4	14.4
67°	6677.9	3659.9	50.8	17.6	9.6	5.3	6.9	10.2	12.8	13.9	14.4
67.5°	6502.1	3512.4	48.6	17.1	9.1	5.3	6.9	10.2	12.8	14.4	14.4
70°	5290.5	2638.6	40.6	12.8	7.5	4.8	5.9	9.6	12.3	13.9	13.9
72.5°	3675.9	1626.9	36.3	9.1	6.4	4.3	5.3	9.1	11.8	13.4	13.9
75°	1747.6	589.0	31.0	6.9	5.9	3.7	4.8	9.1	11.8	13.4	13.4
77.5°	356.5	136.8	25.1	5.9	4.8	3.7	4.3	8.6	11.2	12.8	12.8
80°	117.0	52.9	18.7	5.3	4.8	3.7	4.3	8.0	11.2	12.3	12.8
82.5°	84.4	26.7	12.3	5.3	4.8	3.7	3.7	8.0	10.7	12.3	12.3
85°	64.7	18.7	8.0	5.3	4.8	3.7	3.7	7.5	10.2	11.8	11.8
87.5°	42.8	7.5	6.4	5.3	4.8	3.7	3.7	7.5	9.6	11.2	11.8
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)