

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: P299710

Luminaire Tested: **GLNA-AF-03-LED-E1-SL2-600-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299710
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-03-LED-E1-SL2-600-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 4000K CCT 600mA 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: 9007 lumens
Efficiency: N/A
Efficacy: 93.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 96
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

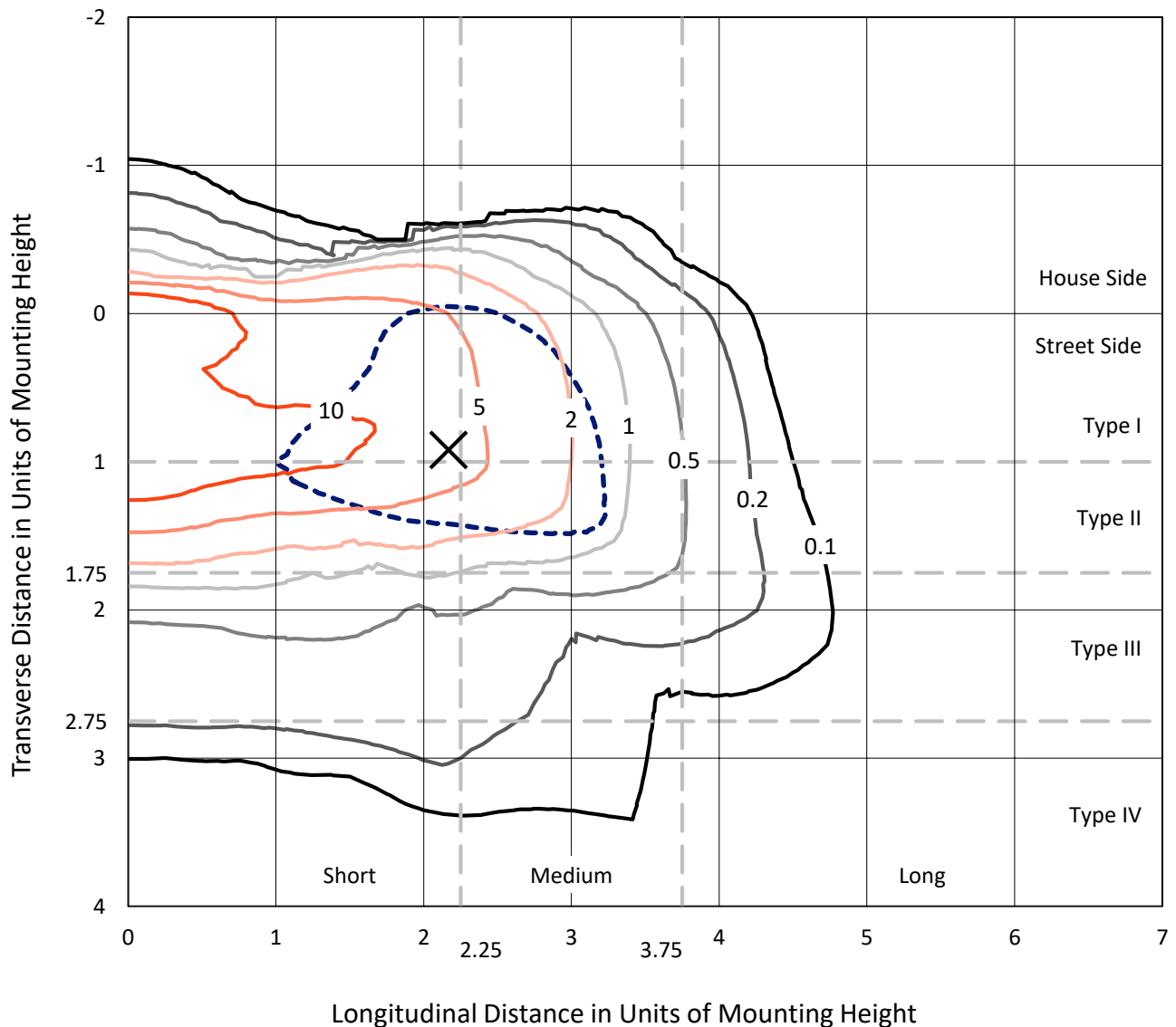


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

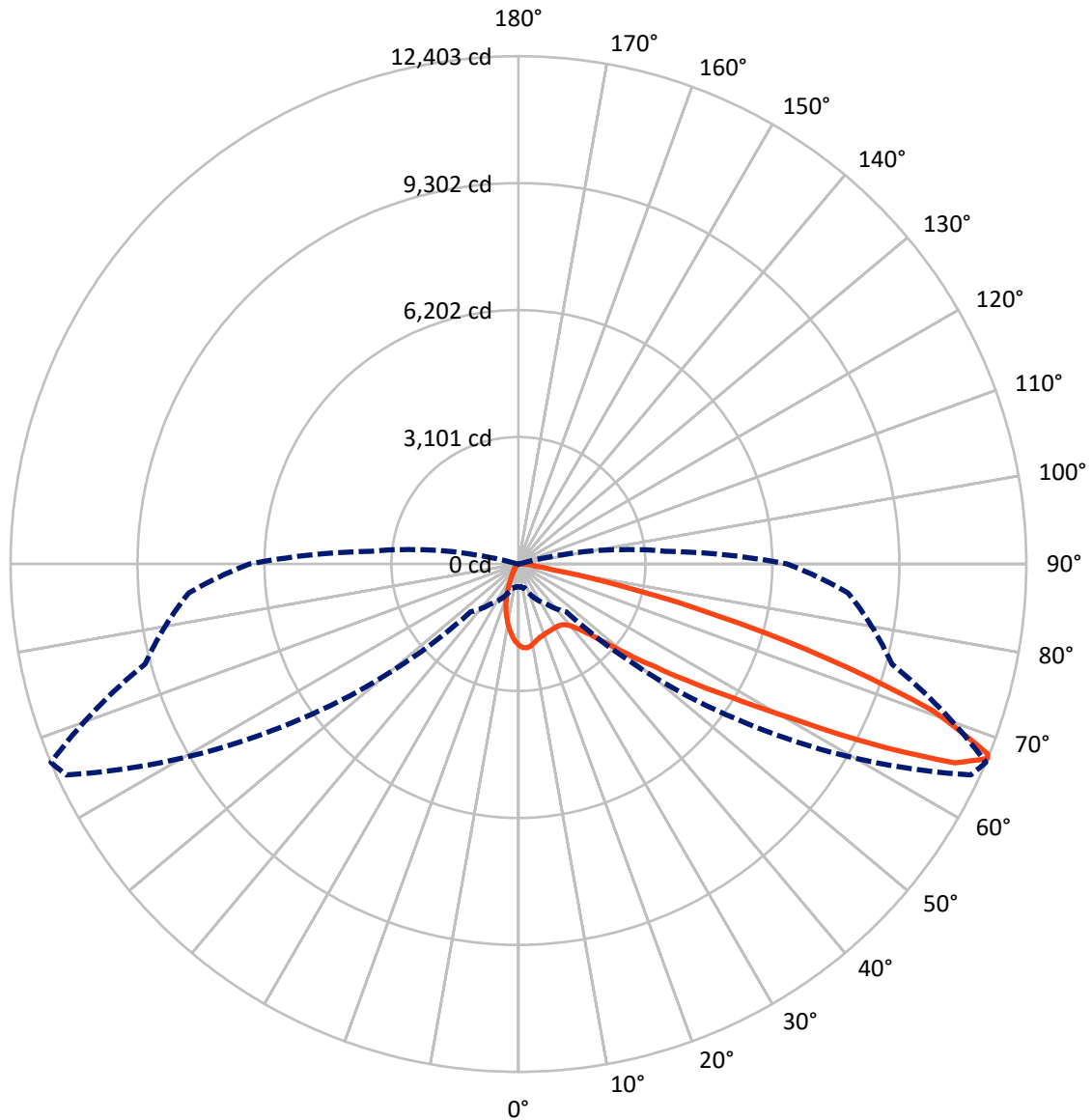


Based on 10 foot mounting height. Maximum calculated value = 19.9 fc
 Type II - Short - Semi-Cutoff

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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	935.2	0.0	935.2
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	8071.8	0.0	8071.8
	% Fixture	89.6	0.0	89.6
Total	Lumens	9007.0	0.0	9007.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	161.6	1.8
10°-20°	344.0	3.8
20°-30°	500.2	5.6
30°-40°	780.3	8.7
40°-50°	1382.2	15.3
50°-60°	2187.2	24.3
60°-70°	2505.1	27.8
70°-80°	1039.1	11.5
80°-90°	107.3	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°	9007.0	100.0
0°-180°	9007.0	100.0

Coefficient of Utilization



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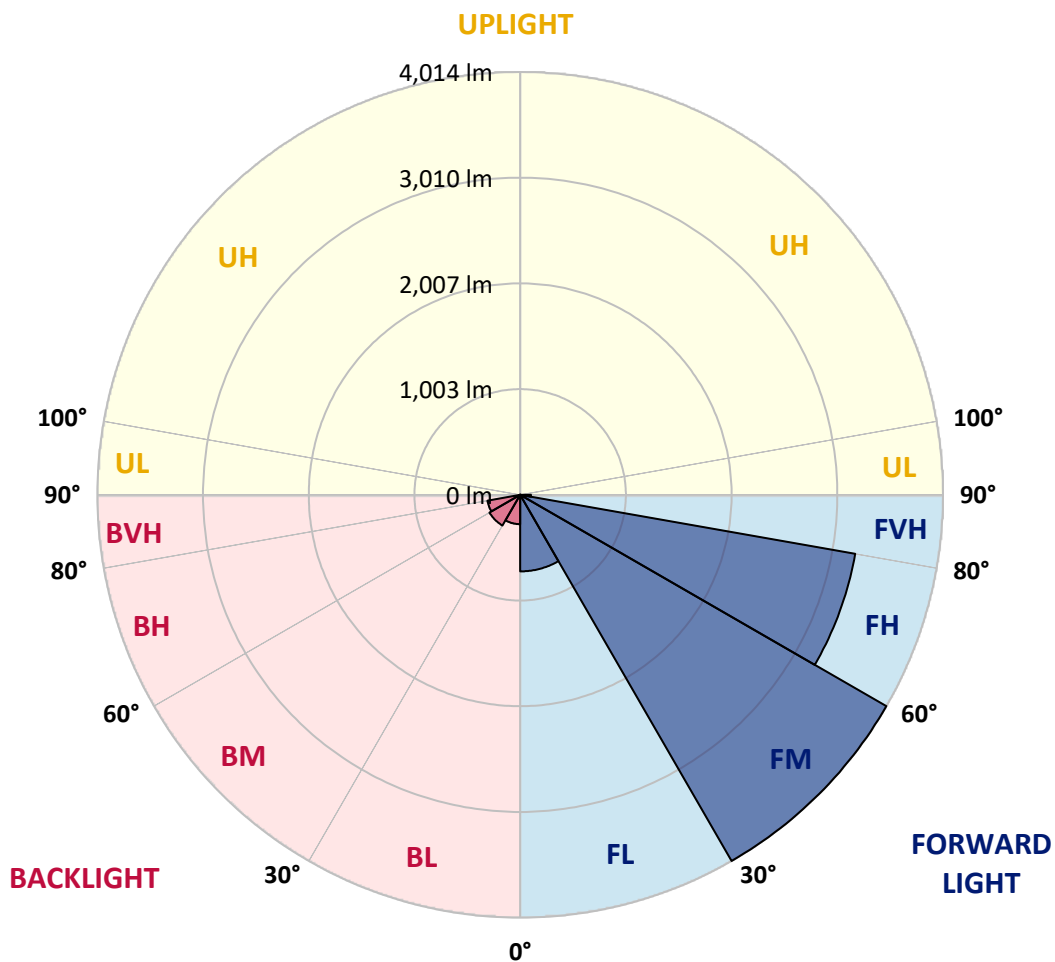
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	726.7	8.1			
FM	(30°-60°)	4013.5	44.6			
FH	(60°-80°)	3229.0	35.9			G2/5000
FVH	(80°-90°)	102.5	1.1			G2/225
BL	(0°-30°)	279.1	3.1	B1/500		
BM	(30°-60°)	336.1	3.7	B1/1000		
BH	(60°-80°)	315.2	3.5	B1/500		G1/500
BVH	(80°-90°)	4.8	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°	1986.4	1986.4	1986.4	1986.4	1986.4	1986.4	1986.4	1986.4	1986.4	1986.4	1986.4
2.5°	2053.6	2057.8	2057.3	2060.4	2067.8	2068.3	2061.0	2046.8	2043.6	2025.2	1993.2
5°	1893.9	1906.0	1913.3	1943.3	1976.9	2017.4	2047.8	2058.9	2057.3	2044.2	1995.8
7.5°	1711.6	1723.7	1732.1	1767.3	1812.0	1881.3	1960.6	2025.8	2031.5	2045.7	1993.7
10°	1590.3	1592.4	1603.9	1637.5	1684.3	1755.2	1849.8	1963.8	1981.1	2033.1	1988.5
12.5°	1490.4	1492.0	1507.2	1543.5	1593.4	1664.9	1764.1	1896.0	1922.8	2017.4	1987.4
15°	1419.5	1425.3	1438.9	1476.8	1529.8	1600.8	1702.7	1846.1	1878.1	2011.6	1996.9
17.5°	1395.9	1402.2	1406.4	1433.7	1482.0	1551.4	1655.9	1813.5	1849.8	2014.7	2015.3
20°	1420.6	1425.3	1415.8	1422.7	1452.6	1514.6	1616.5	1785.7	1828.8	2018.4	2038.9
22.5°	1512.5	1514.6	1488.9	1458.9	1453.7	1487.8	1585.5	1763.6	1809.8	2028.4	2066.7
25°	1670.1	1666.4	1624.4	1559.8	1498.8	1483.1	1567.1	1750.0	1800.4	2038.9	2095.6
27.5°	1860.3	1865.5	1807.7	1713.7	1597.6	1514.6	1564.5	1744.2	1796.2	2046.3	2120.9
30°	2091.4	2098.8	2032.6	1914.4	1747.9	1592.4	1588.7	1743.1	1793.6	2041.5	2123.0
32.5°	2327.3	2336.3	2284.2	2162.4	1948.5	1722.6	1643.3	1754.7	1798.8	2025.2	2110.9
35°	2574.2	2586.8	2552.2	2447.6	2220.7	1910.7	1739.5	1789.9	1823.5	2023.7	2098.8
37.5°	2915.2	2926.8	2861.6	2750.8	2550.1	2162.9	1893.9	1856.1	1881.8	2048.9	2101.9
40°	3424.3	3422.7	3254.6	3084.9	2912.0	2483.4	2110.9	1975.9	1989.0	2125.1	2140.8
42.5°	3979.0	3976.4	3727.9	3470.0	3313.9	2877.9	2396.1	2182.9	2173.9	2265.3	2241.7
45°	4406.7	4406.2	4203.4	3912.8	3797.8	3330.8	2764.9	2470.7	2457.1	2493.3	2427.7
47.5°	4589.0	4592.1	4490.2	4285.8	4334.2	3943.3	3229.9	2887.9	2867.4	2852.7	2752.9
50°	4447.1	4453.4	4461.8	4421.9	4727.7	4766.5	3853.5	3475.8	3465.8	3400.1	3244.1
52.5°	3983.8	4015.8	4114.6	4241.2	4864.3	5556.7	4831.2	4206.0	4152.4	4082.5	3910.7
55°	3203.1	3238.3	3425.8	3733.2	4661.0	6075.7	6201.3	5147.4	5058.1	4849.6	4601.6
57.5°	2119.8	2174.4	2446.6	2837.4	4070.5	6159.3	7568.3	6454.0	6143.0	5571.9	5292.4
60°	1167.9	1220.4	1515.6	1869.7	2939.9	5746.3	8487.6	8155.1	7605.6	6379.4	6131.4
62.5°	719.2	747.6	965.6	1295.0	1763.1	4535.4	8677.8	10292.8	9656.6	7419.1	7144.8
65°	572.6	584.7	691.4	1058.6	1264.0	2697.7	8063.7	11922.4	11710.2	8677.8	8052.1
67°	555.8	560.6	611.0	908.9	1191.5	1653.8	6755.5	12187.7	12403.1	9439.6	8080.5
67.5°	559.5	564.8	612.6	867.4	1189.4	1519.9	6304.8	12083.2	12355.3	9500.0	7954.9
70°	539.5	555.8	701.3	866.8	1131.1	1263.0	3775.7	10469.3	10752.4	8827.0	6749.8
72.5°	191.2	192.3	303.1	701.3	1229.9	1276.6	1896.0	7674.9	7884.5	6752.4	4866.4
75°	113.5	96.7	100.9	199.6	1175.2	1239.8	1093.8	4904.2	4982.5	3869.2	2464.4
77.5°	78.3	68.3	70.4	88.3	447.6	1222.5	868.9	2557.4	2473.9	1357.0	524.8
80°	44.7	39.4	42.0	77.2	162.9	1140.5	819.6	1037.1	884.2	230.1	145.0
82.5°	23.6	20.0	24.2	63.6	113.5	710.8	821.1	501.2	397.2	77.8	98.8
85°	8.4	6.8	11.6	43.6	75.7	218.0	761.2	421.3	331.0	37.8	75.1
87.5°	1.6	1.6	4.7	17.9	30.5	66.7	450.2	250.1	167.6	22.6	51.5
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°	1986.4	1986.4	1986.4	1986.4	1986.4	1986.4	1986.4	1986.4	1986.4	1986.4	1986.4
2.5°	1980.1	1957.5	1927.0	1889.7	1845.6	1806.7	1777.8	1747.9	1741.6	1731.0	1729.5
5°	1966.9	1928.1	1852.4	1765.7	1673.3	1589.7	1522.0	1461.5	1434.7	1411.6	1409.0
7.5°	1947.5	1889.2	1760.5	1620.7	1476.2	1344.9	1233.5	1154.7	1082.2	1047.6	1042.3
10°	1924.9	1841.4	1657.0	1463.1	1263.5	1078.0	912.5	773.8	689.8	639.9	633.6
12.5°	1903.9	1794.6	1551.4	1299.7	1034.4	786.5	573.7	441.3	353.0	317.3	313.1
15°	1893.9	1756.8	1452.6	1132.7	794.9	500.7	313.6	242.7	213.8	205.4	204.9
17.5°	1892.9	1724.7	1355.9	959.8	556.9	291.0	204.4	186.5	180.7	178.6	178.6
20°	1892.3	1694.3	1259.3	780.7	353.6	193.9	170.2	166.0	161.8	159.2	159.2
22.5°	1898.1	1667.0	1158.4	597.9	222.8	157.1	149.7	145.5	140.3	136.6	136.1
25°	1903.9	1645.9	1055.4	425.5	161.3	136.6	129.2	123.5	116.1	111.4	110.8
27.5°	1904.9	1619.7	945.1	284.7	135.0	119.3	109.8	100.9	92.5	87.7	87.2
30°	1889.2	1575.5	822.7	192.3	119.3	103.5	90.9	81.4	73.5	69.9	69.9
32.5°	1858.2	1520.9	688.2	145.0	106.1	88.8	75.1	66.2	60.9	59.4	58.8
35°	1830.3	1462.1	550.0	122.9	95.1	75.1	61.5	55.7	52.5	52.0	51.5
37.5°	1814.1	1414.8	420.3	111.4	84.6	63.0	52.0	47.8	46.2	45.2	45.7
40°	1826.7	1375.4	310.5	101.9	74.1	52.5	44.1	42.0	40.5	39.9	39.9
42.5°	1881.8	1368.6	230.6	93.5	64.1	43.6	38.4	36.8	35.7	35.2	35.7
45°	2026.8	1410.6	179.1	85.6	54.1	36.8	32.6	32.0	31.5	31.5	31.5
47.5°	2244.8	1497.3	149.2	76.7	45.2	31.5	28.4	27.8	27.3	27.8	27.8
50°	2614.2	1655.9	133.4	67.8	37.3	26.8	24.2	24.2	24.2	24.2	24.7
52.5°	3175.8	1968.0	122.9	58.8	30.5	22.6	20.5	20.5	21.0	21.0	21.5
55°	3801.5	2382.0	113.5	49.9	25.7	18.9	16.8	17.3	17.9	18.4	18.4
57.5°	4480.2	2840.6	105.6	41.0	22.1	15.2	14.2	14.7	15.2	16.3	16.3
60°	5299.3	3337.1	94.0	32.0	18.4	12.1	11.0	12.1	13.7	14.7	15.2
62.5°	6198.7	3817.2	79.3	25.2	15.2	9.5	8.9	11.0	13.1	14.2	14.7
65°	6813.3	3968.0	60.9	20.5	11.6	6.8	7.4	10.0	12.6	14.2	14.2
67°	6564.3	3597.6	49.9	17.3	9.5	5.3	6.8	10.0	12.6	13.7	14.2
67.5°	6391.5	3452.6	47.8	16.8	8.9	5.3	6.8	10.0	12.6	14.2	14.2
70°	5200.5	2593.7	39.9	12.6	7.4	4.7	5.8	9.5	12.1	13.7	13.7
72.5°	3613.4	1599.2	35.7	8.9	6.3	4.2	5.3	8.9	11.6	13.1	13.7
75°	1717.9	578.9	30.5	6.8	5.8	3.7	4.7	8.9	11.6	13.1	13.1
77.5°	350.4	134.5	24.7	5.8	4.7	3.7	4.2	8.4	11.0	12.6	12.6
80°	115.1	52.0	18.4	5.3	4.7	3.7	4.2	7.9	11.0	12.1	12.6
82.5°	83.0	26.3	12.1	5.3	4.7	3.7	3.7	7.9	10.5	12.1	12.1
85°	63.6	18.4	7.9	5.3	4.7	3.7	3.7	7.4	10.0	11.6	11.6
87.5°	42.0	7.4	6.3	5.3	4.7	3.7	3.7	7.4	9.5	11.0	11.6
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)