

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: P301875

Luminaire Tested: **GLNA-AF-03-LED-E1-SL4-800-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301875
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24301)
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-SL4-800-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
w/Spill Control WITH HOUSESIDE SHEILD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10826.1 lumens
Efficiency: N/A
Efficacy: 87.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 124
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

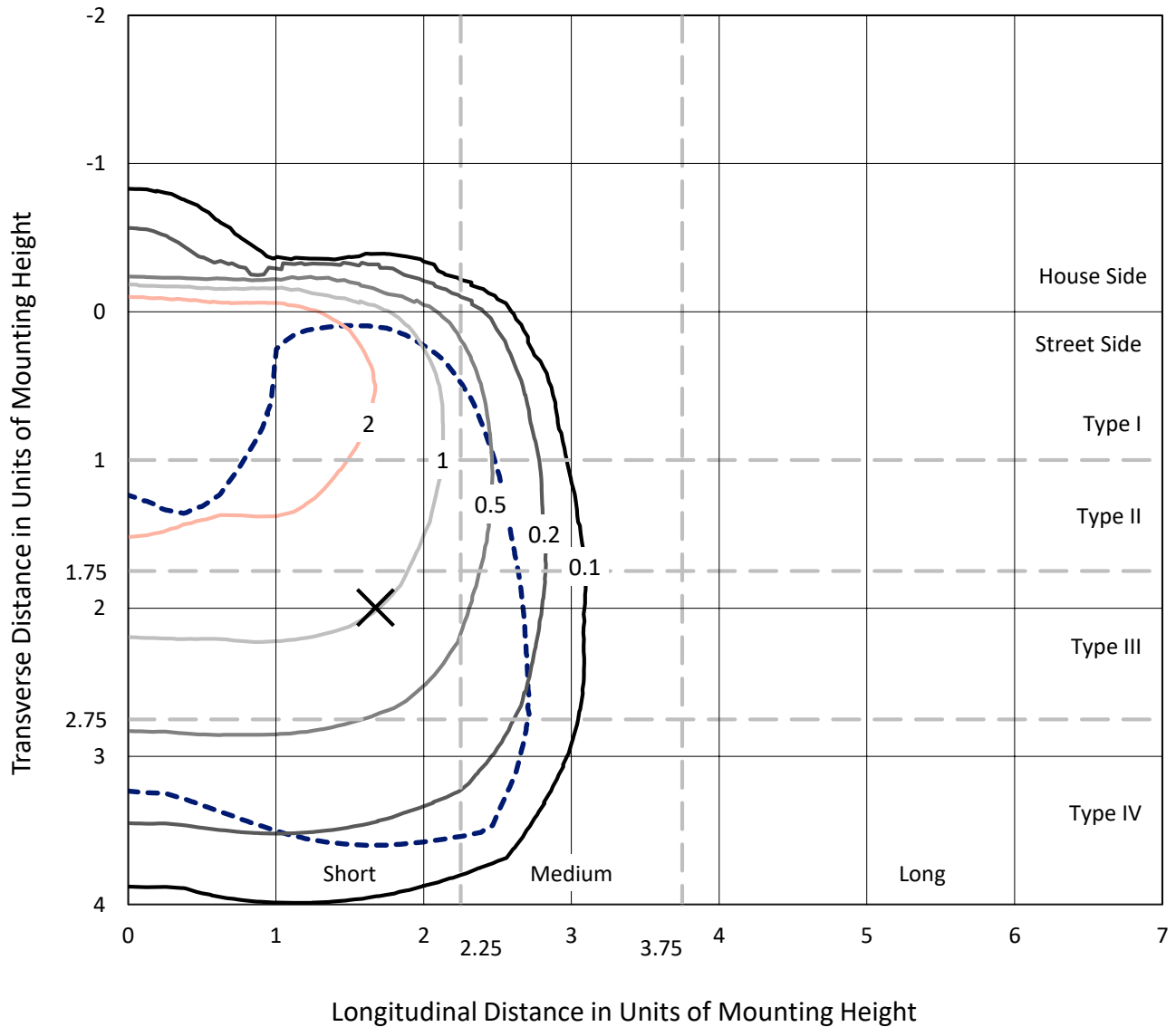


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

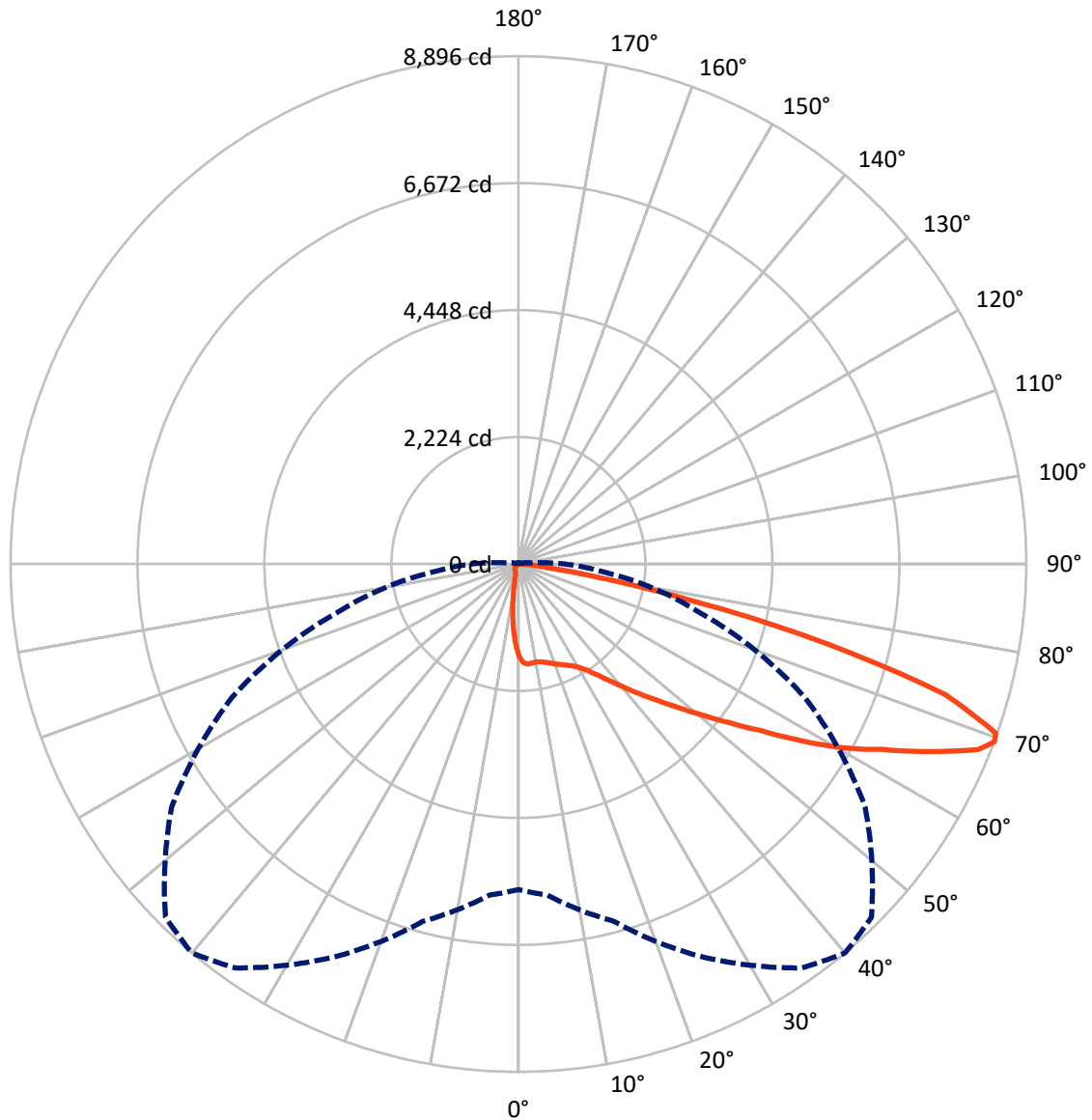


Based on 20 foot mounting height. Maximum calculated value = 4.4 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	633.4	0.0	633.4
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	10192.7	0.0	10192.7
	% Fixture	94.1	0.0	94.1
Total	Lumens	10826.1	0.0	10826.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.1	1.2
10°-20°	322.5	3.0
20°-30°	543.2	5.0
30°-40°	889.3	8.2
40°-50°	1539.7	14.2
50°-60°	2425.2	22.4
60°-70°	3167.3	29.3
70°-80°	1631.3	15.1
80°-90°	176.5	1.6
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°	10826.1	100.0
0°-180°	10826.1	100.0

Coefficient of Utilization



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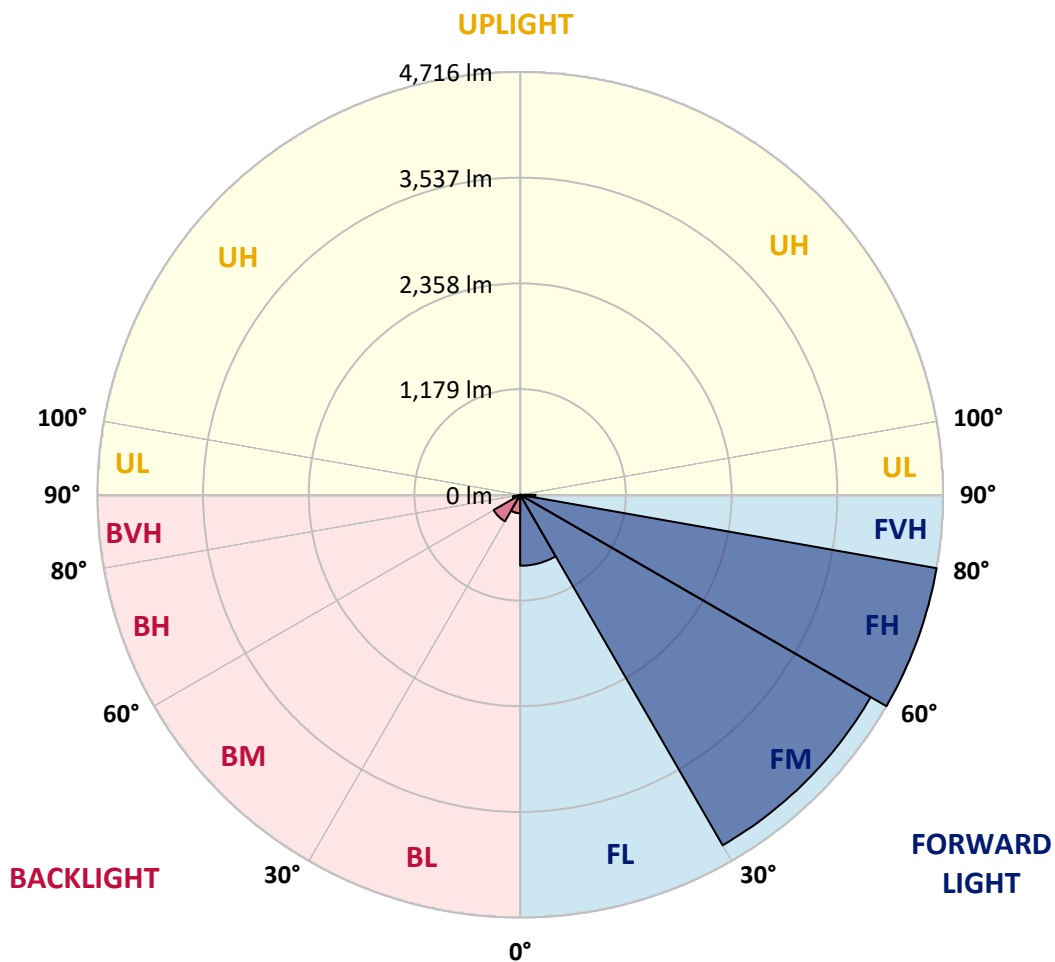
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	791.7	7.3			
FM	(30°-60°)	4513.8	41.7			
FH	(60°-80°)	4716.3	43.6			G2/5000
FVH	(80°-90°)	170.9	1.6			G2/225
BL	(0°-30°)	205.2	1.9	B1/500		
BM	(30°-60°)	340.4	3.1	B1/1000		
BH	(60°-80°)	82.2	0.8	B0/110		G0/110
BVH	(80°-90°)	5.5	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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	1617.5	1617.5	1617.5	1617.5	1617.5	1617.5	1617.5	1617.5	1617.5	1617.5	1617.5
2.5°	1776.0	1766.3	1760.5	1752.8	1743.1	1734.8	1731.5	1707.7	1685.1	1654.2	1618.8
5°	1808.9	1805.6	1795.3	1785.0	1773.4	1760.5	1753.4	1725.1	1692.9	1647.8	1585.9
7.5°	1812.1	1808.2	1795.3	1781.2	1765.0	1749.6	1737.3	1709.0	1679.3	1633.6	1558.2
10°	1806.9	1802.4	1792.8	1777.3	1757.3	1742.5	1730.2	1703.2	1678.1	1636.8	1553.0
12.5°	1801.1	1796.6	1792.1	1784.4	1767.0	1756.7	1746.4	1720.6	1698.0	1663.2	1571.7
15°	1806.9	1804.4	1809.5	1806.3	1796.6	1787.6	1777.3	1754.1	1733.5	1704.5	1605.9
17.5°	1831.4	1831.4	1847.5	1849.5	1840.4	1827.6	1812.7	1789.5	1772.1	1747.6	1646.5
20°	1888.8	1886.8	1907.5	1911.3	1889.4	1869.4	1847.5	1819.2	1805.6	1790.2	1686.4
22.5°	1987.4	1978.3	1990.6	1986.7	1943.5	1912.6	1885.6	1850.8	1843.7	1836.6	1730.9
25°	2115.6	2110.5	2118.8	2080.8	2004.8	1962.9	1930.7	1891.4	1891.4	1898.4	1781.2
27.5°	2301.8	2282.5	2254.2	2187.1	2073.1	2019.6	1984.8	1942.9	1953.9	1980.3	1847.5
30°	2492.6	2471.3	2406.2	2303.1	2156.2	2100.1	2059.5	2015.7	2041.5	2089.8	1936.5
32.5°	2680.8	2656.9	2564.8	2434.6	2275.4	2219.4	2180.0	2131.7	2174.9	2256.1	2066.6
35°	2863.1	2841.9	2735.5	2582.2	2433.9	2387.6	2351.5	2309.6	2365.0	2478.4	2250.3
37.5°	3068.1	3044.9	2915.3	2749.1	2626.6	2593.1	2566.7	2524.8	2621.5	2787.7	2506.1
40°	3320.0	3280.7	3106.1	2940.5	2849.6	2833.5	2815.4	2809.6	2959.8	3189.8	2847.0
42.5°	3608.7	3544.3	3305.8	3142.2	3094.5	3106.1	3101.6	3127.3	3383.2	3689.9	3262.0
45°	3897.4	3814.3	3528.2	3357.4	3363.8	3404.4	3429.6	3532.7	3913.5	4263.4	3708.6
47.5°	4142.3	4060.4	3741.5	3590.0	3667.4	3747.3	3815.6	4010.8	4458.7	4827.9	4055.9
50°	4351.7	4274.4	3967.7	3845.9	4019.8	4148.7	4259.6	4548.9	5045.1	5257.8	4299.5
52.5°	4523.1	4471.6	4202.2	4139.1	4422.6	4611.4	4773.8	5120.5	5564.5	5607.0	4489.0
55°	4690.0	4653.3	4454.2	4487.7	4895.6	5152.7	5358.3	5726.9	6011.7	5898.3	4670.7
57.5°	4882.1	4848.6	4741.6	4929.8	5517.5	5841.0	6065.2	6264.3	6405.5	6196.0	4842.1
60°	5078.0	5058.6	5061.2	5420.8	6231.5	6542.1	6665.8	6717.4	6792.1	6476.4	4851.8
62.5°	5264.9	5301.6	5426.6	5967.3	6915.2	7153.6	7216.1	7267.0	7179.4	6520.8	4482.5
65°	5581.3	5641.2	5939.6	6698.7	7667.2	7922.4	7986.9	7812.2	7240.6	5946.0	3646.1
67.5°	5735.9	5845.5	6377.8	7380.5	8396.7	8680.2	8656.4	7847.7	6497.6	4534.1	2339.9
69°	5703.7	5820.3	6478.9	7589.3	8639.0	8896.1	8744.7	7414.0	5535.5	3284.6	1436.4
70°	5576.1	5694.0	6426.7	7581.5	8669.9	8873.6	8581.0	6878.5	4680.4	2401.7	898.3
72.5°	4656.5	4758.3	5705.6	6852.7	7986.9	7821.2	7178.8	4765.4	2280.6	654.1	202.3
75°	2866.3	2923.1	4094.0	5162.4	6032.4	5607.0	4782.8	2370.8	679.9	184.9	112.1
77.5°	1514.4	1540.1	2241.3	3042.9	3823.9	3164.1	2451.3	924.7	313.2	116.0	81.2
80°	895.1	914.4	1207.0	1391.3	1654.9	1382.3	980.2	567.7	224.3	72.8	72.2
82.5°	512.3	524.6	875.1	773.3	652.1	556.8	487.8	538.1	134.7	49.0	74.8
85°	188.2	190.7	492.3	588.3	387.9	230.7	242.3	445.9	36.1	30.9	58.6
87.5°	87.6	85.7	253.3	360.2	226.8	146.3	188.8	98.0	14.2	20.0	16.1
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°	1617.5	1617.5	1617.5	1617.5	1617.5	1617.5	1617.5	1617.5	1617.5	1617.5	1617.5
2.5°	1598.1	1574.3	1531.1	1486.7	1441.6	1406.8	1372.6	1345.5	1336.5	1319.8	1321.0
5°	1549.2	1505.3	1415.1	1323.6	1228.3	1149.6	1075.5	1015.6	986.6	957.0	957.0
7.5°	1506.6	1442.8	1301.7	1152.9	998.8	869.3	752.7	665.0	616.7	578.0	577.4
10°	1490.5	1404.2	1207.0	993.7	779.1	602.5	464.0	375.0	329.3	299.7	298.4
12.5°	1497.6	1390.6	1134.2	846.8	577.4	387.3	268.7	211.4	192.0	183.0	183.0
15°	1518.2	1386.8	1061.3	703.1	407.9	242.3	178.5	163.0	161.7	161.7	161.7
17.5°	1543.4	1388.1	986.6	563.2	277.7	173.3	154.0	152.1	153.4	153.4	153.4
20°	1569.1	1388.7	906.0	433.7	195.9	150.8	145.0	144.3	145.6	145.6	146.3
22.5°	1600.7	1391.9	825.5	324.1	161.7	142.4	137.9	137.9	138.5	138.5	137.9
25°	1636.8	1398.4	741.7	240.4	147.6	136.6	132.7	132.1	132.7	132.1	131.5
27.5°	1681.9	1407.4	648.3	188.2	141.1	130.8	127.6	127.6	126.9	126.3	125.7
30°	1738.6	1417.7	543.2	159.8	134.7	125.7	122.4	121.8	121.1	119.9	119.9
32.5°	1825.0	1440.3	439.5	145.0	127.6	118.6	116.0	116.0	114.7	113.4	112.8
35°	1957.7	1484.7	346.7	136.0	119.9	110.8	107.6	107.6	106.3	105.7	105.0
37.5°	2141.4	1552.4	269.4	127.6	112.1	102.5	99.2	98.6	97.3	96.0	95.4
40°	2385.6	1636.2	212.0	119.9	104.4	94.1	91.5	90.2	87.6	85.7	85.7
42.5°	2692.4	1731.5	172.1	111.5	95.4	86.4	84.4	82.5	78.0	76.0	75.4
45°	3013.3	1817.2	145.6	101.8	86.4	78.6	77.3	74.1	68.3	66.4	66.4
47.5°	3244.6	1837.2	128.2	92.8	78.0	70.2	69.6	63.8	58.6	57.4	56.7
50°	3389.0	1797.9	114.1	83.8	70.2	62.5	60.6	53.5	50.3	49.0	48.3
52.5°	3486.3	1727.7	102.5	76.0	63.2	55.4	50.9	45.8	43.2	41.9	41.9
55°	3564.2	1628.4	90.9	69.0	57.4	49.6	43.2	39.3	36.7	35.4	35.4
57.5°	3586.2	1493.7	79.3	63.2	51.6	43.8	36.7	34.2	30.9	30.3	30.3
60°	3427.0	1250.8	70.2	56.1	46.4	38.0	32.2	29.0	25.8	25.1	24.5
62.5°	3007.5	967.9	61.9	49.6	40.6	32.9	27.7	23.8	21.3	21.3	21.3
65°	2294.1	648.9	54.1	43.2	35.4	27.7	23.8	19.3	18.0	18.0	18.7
67.5°	1373.2	353.1	46.4	36.7	30.3	23.2	20.0	16.8	16.1	16.8	16.8
69°	804.9	207.5	41.9	32.9	26.4	20.6	17.4	14.8	16.1	16.8	16.8
70°	496.8	139.8	38.7	29.6	23.8	18.7	16.1	14.2	15.5	16.1	16.1
72.5°	138.5	72.2	30.9	23.2	19.3	15.5	12.9	12.9	14.8	15.5	15.5
75°	90.2	53.5	23.8	17.4	14.8	12.2	11.0	12.2	14.2	14.8	14.8
77.5°	74.8	43.8	19.3	14.2	12.2	11.6	10.3	11.0	12.9	13.5	13.5
80°	68.3	30.9	15.5	12.9	11.0	10.3	9.7	9.0	11.6	12.2	12.2
82.5°	65.1	24.5	13.5	11.6	10.3	9.0	8.4	9.0	10.3	11.0	11.6
85°	40.6	16.1	12.2	11.0	9.0	8.4	8.4	8.4	9.7	10.3	10.3
87.5°	14.8	12.9	11.0	9.0	7.7	7.7	7.7	7.7	8.4	9.7	9.7
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)