

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: P301939

Luminaire Tested: **GLNA-AF-04-LED-E1-SL4-7030-600-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301939
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-04-LED-E1-SL4-7030-600-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 3000K CCT 600mA 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: 11282.7 lumens
Efficiency: N/A
Efficacy: 87.5 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): 129
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

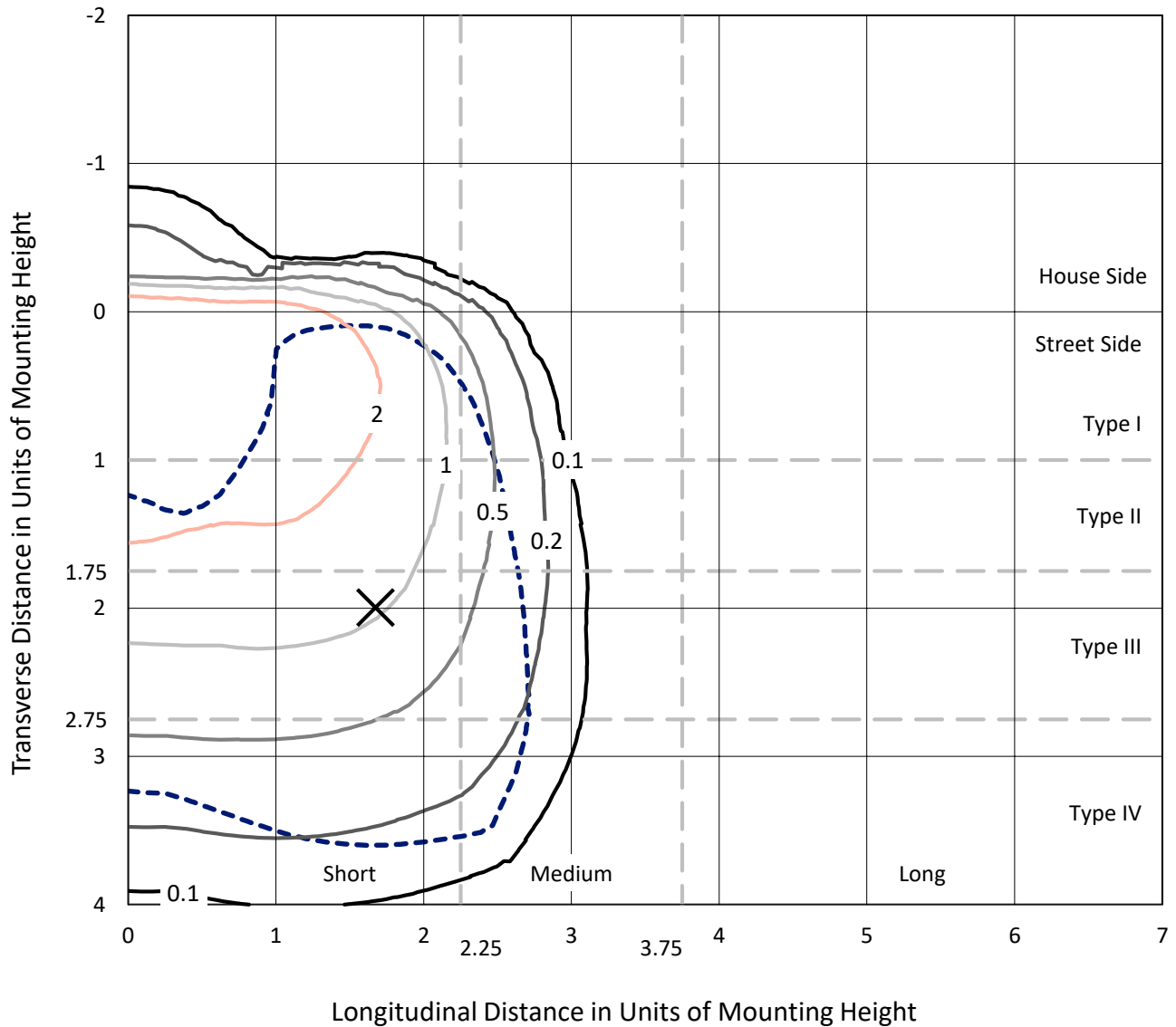


REPORT NUMBER: P301939

CATALOG NUMBER: GLNA-AF-04-LED-E1-SL4-7030-600-HSS

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

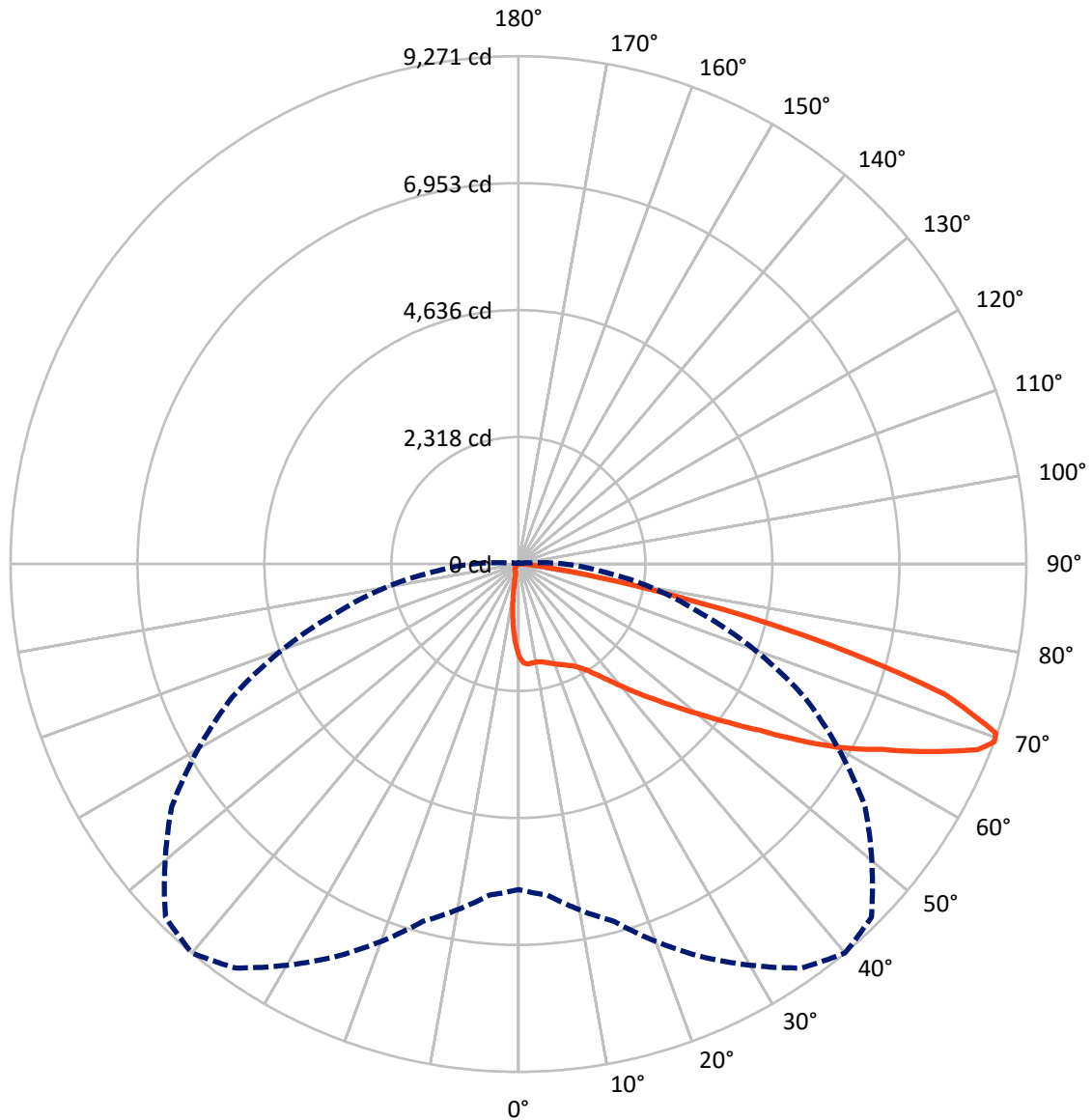


Based on 20 foot mounting height. Maximum calculated value = 4.6 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P301939

CATALOG NUMBER: GLNA-AF-04-LED-E1-SL4-7030-600-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P301939

CATALOG NUMBER: GLNA-AF-04-LED-E1-SL4-7030-600-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	660.1	0.0	660.1
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	10622.6	0.0	10622.6
	% Fixture	94.1	0.0	94.1
Total	Lumens	11282.7	0.0	11282.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.7	1.2
10°-20°	336.1	3.0
20°-30°	566.1	5.0
30°-40°	926.8	8.2
40°-50°	1604.7	14.2
50°-60°	2527.5	22.4
60°-70°	3300.8	29.3
70°-80°	1700.1	15.1
80°-90°	183.9	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°	11282.7	100.0
0°-180°	11282.7	100.0

Coefficient of Utilization



REPORT NUMBER: P301939

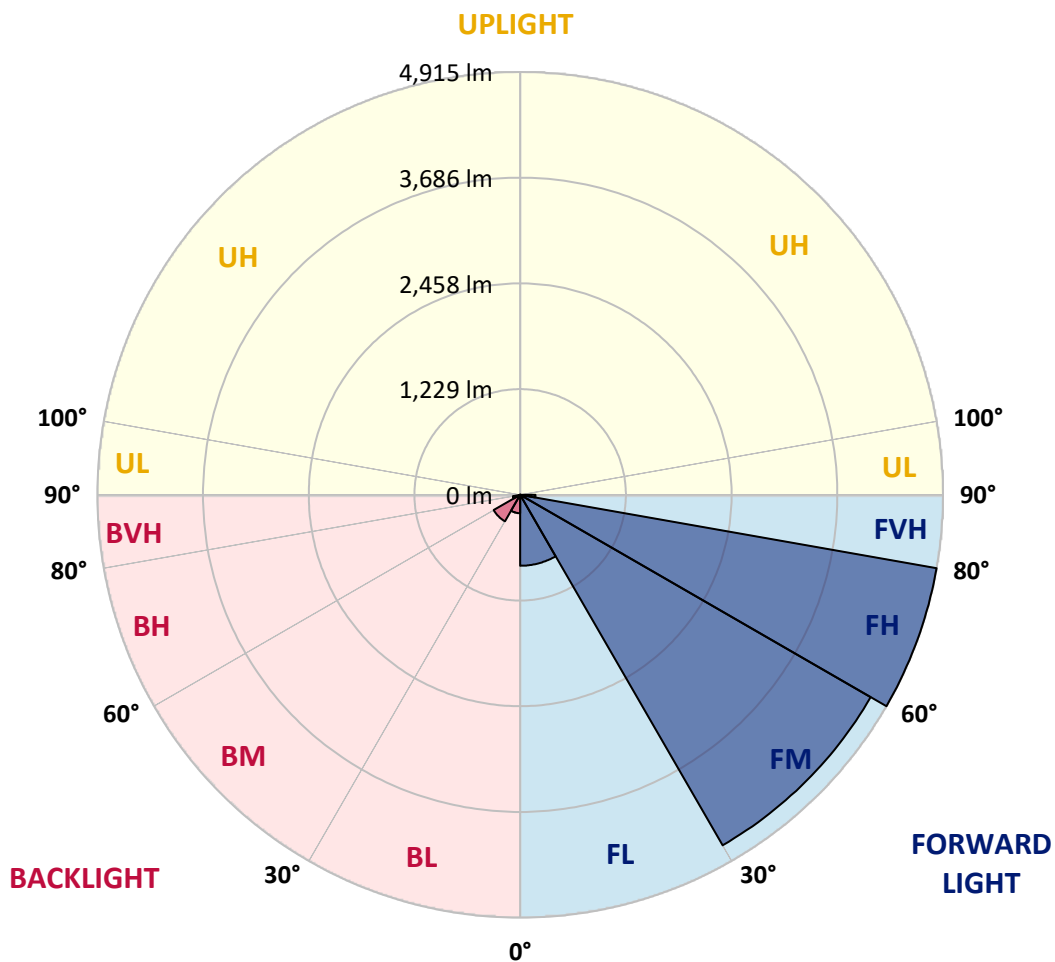
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	825.1	7.3			
FM	(30°-60°)	4704.2	41.7			
FH	(60°-80°)	4915.2	43.6			G2/5000
FVH	(80°-90°)	178.1	1.6			G2/225
BL	(0°-30°)	213.8	1.9	B1/500		
BM	(30°-60°)	354.8	3.1	B1/1000		
BH	(60°-80°)	85.7	0.8	B0/110		G0/110
BVH	(80°-90°)	5.8	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 IV Short





REPORT NUMBER: P301939

CATALOG NUMBER: GLNA-AF-04-LED-E1-SL4-7030-600-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	1685.7	1685.7	1685.7	1685.7	1685.7	1685.7	1685.7	1685.7	1685.7	1685.7	1685.7
2.5°	1850.9	1840.8	1834.8	1826.7	1816.7	1807.9	1804.6	1779.7	1756.2	1724.0	1687.0
5°	1885.2	1881.8	1871.1	1860.3	1848.2	1834.8	1827.4	1797.8	1764.3	1717.3	1652.8
7.5°	1888.5	1884.5	1871.1	1856.3	1839.5	1823.4	1810.6	1781.1	1750.2	1702.5	1623.9
10°	1883.1	1878.4	1868.4	1852.2	1831.4	1816.0	1803.2	1775.0	1748.8	1705.8	1618.5
12.5°	1877.1	1872.4	1867.7	1859.6	1841.5	1830.8	1820.0	1793.1	1769.6	1733.4	1638.0
15°	1883.1	1880.5	1885.8	1882.5	1872.4	1863.0	1852.2	1828.1	1806.6	1776.4	1673.6
17.5°	1908.7	1908.7	1925.5	1927.5	1918.1	1904.6	1889.2	1865.0	1846.9	1821.4	1715.9
20°	1968.4	1966.4	1987.9	1991.9	1969.1	1948.3	1925.5	1895.9	1881.8	1865.7	1757.6
22.5°	2071.2	2061.8	2074.5	2070.5	2025.5	1993.3	1965.1	1928.8	1921.4	1914.0	1803.9
25°	2204.8	2199.5	2208.2	2168.6	2089.3	2045.7	2012.1	1971.1	1971.1	1978.5	1856.3
27.5°	2398.9	2378.8	2349.2	2279.4	2160.5	2104.8	2068.5	2024.8	2036.3	2063.8	1925.5
30°	2597.7	2575.6	2507.7	2400.3	2247.1	2188.7	2146.4	2100.7	2127.6	2178.0	2018.1
32.5°	2793.8	2769.0	2672.9	2537.3	2371.4	2313.0	2272.0	2221.6	2266.6	2351.2	2153.8
35°	2983.9	2961.7	2850.9	2691.1	2536.6	2488.2	2450.6	2407.0	2464.7	2582.9	2345.2
37.5°	3197.4	3173.3	3038.3	2865.0	2737.4	2702.5	2674.9	2631.3	2732.0	2905.3	2611.8
40°	3460.0	3419.1	3237.1	3064.5	2969.8	2953.0	2934.2	2928.1	3084.6	3324.4	2967.1
42.5°	3760.9	3693.7	3445.3	3274.7	3225.0	3237.1	3232.4	3259.2	3525.9	3845.5	3399.6
45°	4061.8	3975.1	3677.0	3499.0	3505.7	3548.0	3574.2	3681.7	4078.6	4443.2	3865.0
47.5°	4317.0	4231.7	3899.3	3741.4	3822.0	3905.3	3976.5	4180.0	4646.7	5031.6	4227.0
50°	4535.3	4454.7	4135.0	4008.1	4189.4	4323.7	4439.2	4740.8	5257.9	5479.5	4480.9
52.5°	4713.9	4660.2	4379.4	4313.6	4609.1	4805.9	4975.1	5336.5	5799.2	5843.5	4678.3
55°	4887.8	4849.6	4642.0	4677.0	5102.1	5370.0	5584.3	5968.4	6265.3	6147.1	4867.7
57.5°	5088.0	5053.0	4941.6	5137.7	5750.2	6087.3	6321.0	6528.5	6675.6	6457.3	5046.3
60°	5292.1	5272.0	5274.7	5649.4	6494.3	6818.0	6946.9	7000.7	7078.6	6749.5	5056.4
62.5°	5486.9	5525.2	5655.5	6218.9	7206.8	7455.3	7520.5	7573.5	7482.2	6795.8	4671.6
65°	5816.6	5879.1	6190.1	6981.2	7990.6	8256.5	8323.7	8141.7	7546.0	6196.8	3799.9
67.5°	5977.8	6092.0	6646.7	7691.7	8750.8	9046.3	9021.5	8178.6	6771.7	4725.3	2438.5
69°	5944.3	6065.8	6752.2	7909.3	9003.3	9271.3	9113.5	7726.7	5769.0	3423.1	1497.0
70°	5811.3	5934.2	6697.8	7901.3	9035.6	9247.8	8942.9	7168.6	4877.8	2503.0	936.2
72.5°	4852.9	4959.0	5946.3	7141.7	8323.7	8151.1	7481.5	4966.4	2376.8	681.7	210.9
75°	2987.2	3046.3	4266.6	5380.1	6286.8	5843.5	4984.5	2470.8	708.5	192.7	116.9
77.5°	1578.2	1605.1	2335.8	3171.3	3985.2	3297.5	2554.7	963.7	326.4	120.9	84.6
80°	932.8	953.0	1257.9	1450.0	1724.6	1440.6	1021.5	591.7	233.7	75.9	75.2
82.5°	533.9	546.7	912.0	805.9	679.6	580.3	508.4	560.8	140.4	51.0	77.9
85°	196.1	198.8	513.1	613.2	404.3	240.4	252.5	464.7	37.6	32.2	61.1
87.5°	91.3	89.3	263.9	375.4	236.4	152.5	196.8	102.1	14.8	20.8	16.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P301939

CATALOG NUMBER: GLNA-AF-04-LED-E1-SL4-7030-600-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1685.7	1685.7	1685.7	1685.7	1685.7	1685.7	1685.7	1685.7	1685.7	1685.7	1685.7
2.5°	1665.5	1640.7	1595.7	1549.4	1502.3	1466.1	1430.5	1402.3	1392.9	1375.4	1376.8
5°	1614.5	1568.8	1474.8	1379.4	1280.1	1198.1	1120.9	1058.4	1028.2	997.3	997.3
7.5°	1570.2	1503.7	1356.6	1201.5	1041.0	906.0	784.4	693.1	642.7	602.4	601.7
10°	1553.4	1463.4	1257.9	1035.6	812.0	627.9	483.5	390.9	343.2	312.3	310.9
12.5°	1560.8	1449.3	1182.0	882.5	601.7	403.6	280.1	220.3	200.1	190.7	190.7
15°	1582.3	1445.3	1106.1	732.7	425.1	252.5	186.0	169.9	168.6	168.6	168.6
17.5°	1608.5	1446.6	1028.2	587.0	289.5	180.7	160.5	158.5	159.8	159.8	159.8
20°	1635.3	1447.3	944.3	452.0	204.2	157.2	151.1	150.4	151.8	151.8	152.5
22.5°	1668.2	1450.6	860.3	337.8	168.6	148.4	143.7	143.7	144.4	144.4	143.7
25°	1705.8	1457.4	773.0	250.5	153.8	142.4	138.3	137.7	138.3	137.7	137.0
27.5°	1752.9	1466.8	675.6	196.1	147.1	136.3	133.0	133.0	132.3	131.6	131.0
30°	1812.0	1477.5	566.2	166.6	140.4	131.0	127.6	126.9	126.3	124.9	124.9
32.5°	1901.9	1501.0	458.0	151.1	133.0	123.6	120.9	120.9	119.5	118.2	117.5
35°	2040.3	1547.3	361.3	141.7	124.9	115.5	112.2	112.2	110.8	110.1	109.5
37.5°	2231.7	1617.9	280.7	133.0	116.9	106.8	103.4	102.8	101.4	100.1	99.4
40°	2486.2	1705.2	221.0	124.9	108.8	98.1	95.4	94.0	91.3	89.3	89.3
42.5°	2805.9	1804.6	179.3	116.2	99.4	90.0	88.0	86.0	81.3	79.2	78.6
45°	3140.4	1893.9	151.8	106.1	90.0	81.9	80.6	77.2	71.2	69.2	69.2
47.5°	3381.5	1914.7	133.6	96.7	81.3	73.2	72.5	66.5	61.1	59.8	59.1
50°	3531.9	1873.7	118.9	87.3	73.2	65.1	63.1	55.7	52.4	51.0	50.4
52.5°	3633.3	1800.5	106.8	79.2	65.8	57.8	53.1	47.7	45.0	43.7	43.7
55°	3714.6	1697.1	94.7	71.9	59.8	51.7	45.0	41.0	38.3	36.9	36.9
57.5°	3737.4	1556.7	82.6	65.8	53.7	45.7	38.3	35.6	32.2	31.6	31.6
60°	3571.5	1303.6	73.2	58.4	48.4	39.6	33.6	30.2	26.9	26.2	25.5
62.5°	3134.3	1008.7	64.5	51.7	42.3	34.3	28.9	24.8	22.2	22.2	22.2
65°	2390.9	676.3	56.4	45.0	36.9	28.9	24.8	20.1	18.8	18.8	19.5
67.5°	1431.2	368.0	48.4	38.3	31.6	24.2	20.8	17.5	16.8	17.5	17.5
69°	838.8	216.3	43.7	34.3	27.5	21.5	18.1	15.4	16.8	17.5	17.5
70°	517.8	145.7	40.3	30.9	24.8	19.5	16.8	14.8	16.1	16.8	16.8
72.5°	144.4	75.2	32.2	24.2	20.1	16.1	13.4	13.4	15.4	16.1	16.1
75°	94.0	55.7	24.8	18.1	15.4	12.8	11.4	12.8	14.8	15.4	15.4
77.5°	77.9	45.7	20.1	14.8	12.8	12.1	10.7	11.4	13.4	14.1	14.1
80°	71.2	32.2	16.1	13.4	11.4	10.7	10.1	9.4	12.1	12.8	12.8
82.5°	67.8	25.5	14.1	12.1	10.7	9.4	8.7	9.4	10.7	11.4	12.1
85°	42.3	16.8	12.8	11.4	9.4	8.7	8.7	8.7	10.1	10.7	10.7
87.5°	15.4	13.4	11.4	9.4	8.1	8.1	8.1	8.1	8.7	10.1	10.1
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)