

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: P299104

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299104
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24286)
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
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Narrow OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11889.1 lumens
Efficiency: N/A
Efficacy: 105.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G3

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

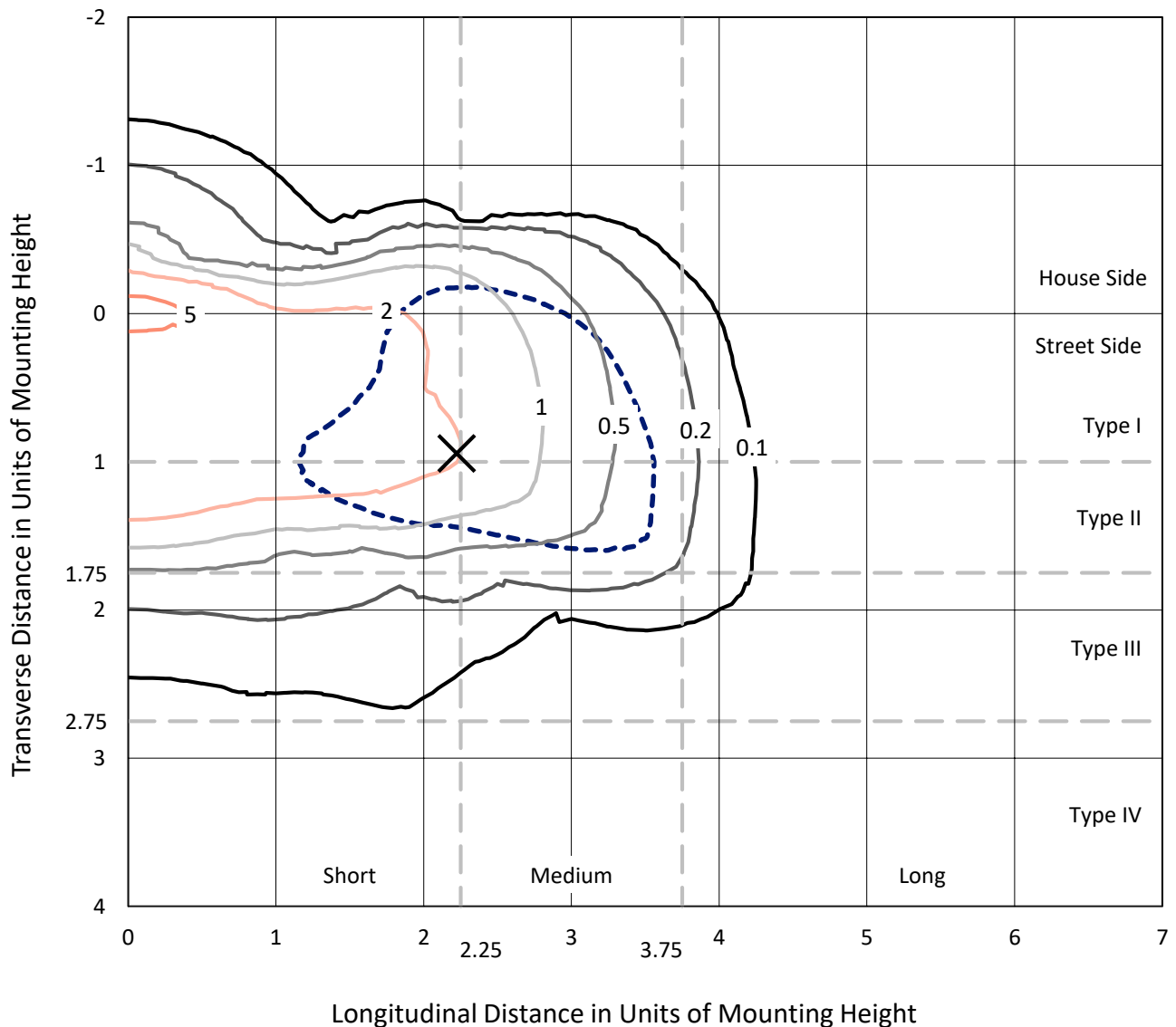


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

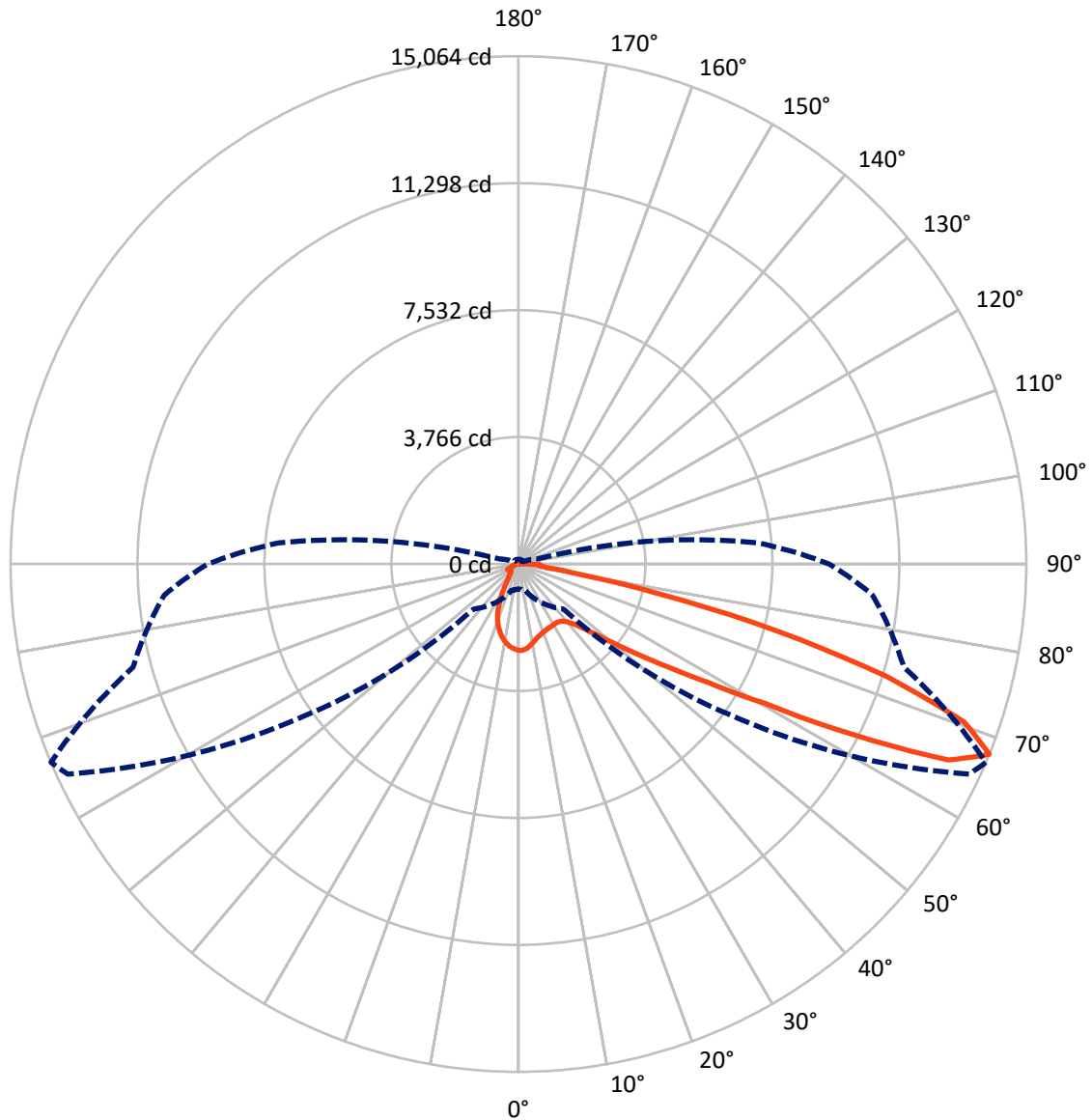


Based on 20 foot mounting height. Maximum calculated value = 6.4 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1969.9	0.0	1969.9
	% Fixture	16.6	0.0	16.6
Street Side	Lumens	9919.2	0.0	9919.2
	% Fixture	83.4	0.0	83.4
Total	Lumens	11889.1	0.0	11889.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	218.8	1.8
10°-20°	506.2	4.3
20°-30°	686.2	5.8
30°-40°	975.5	8.2
40°-50°	1632.1	13.7
50°-60°	2581.9	21.7
60°-70°	3289.1	27.7
70°-80°	1722.8	14.5
80°-90°	276.3	2.3
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°	11889.1	100.0
0°-180°	11889.1	100.0

Coefficient of Utilization



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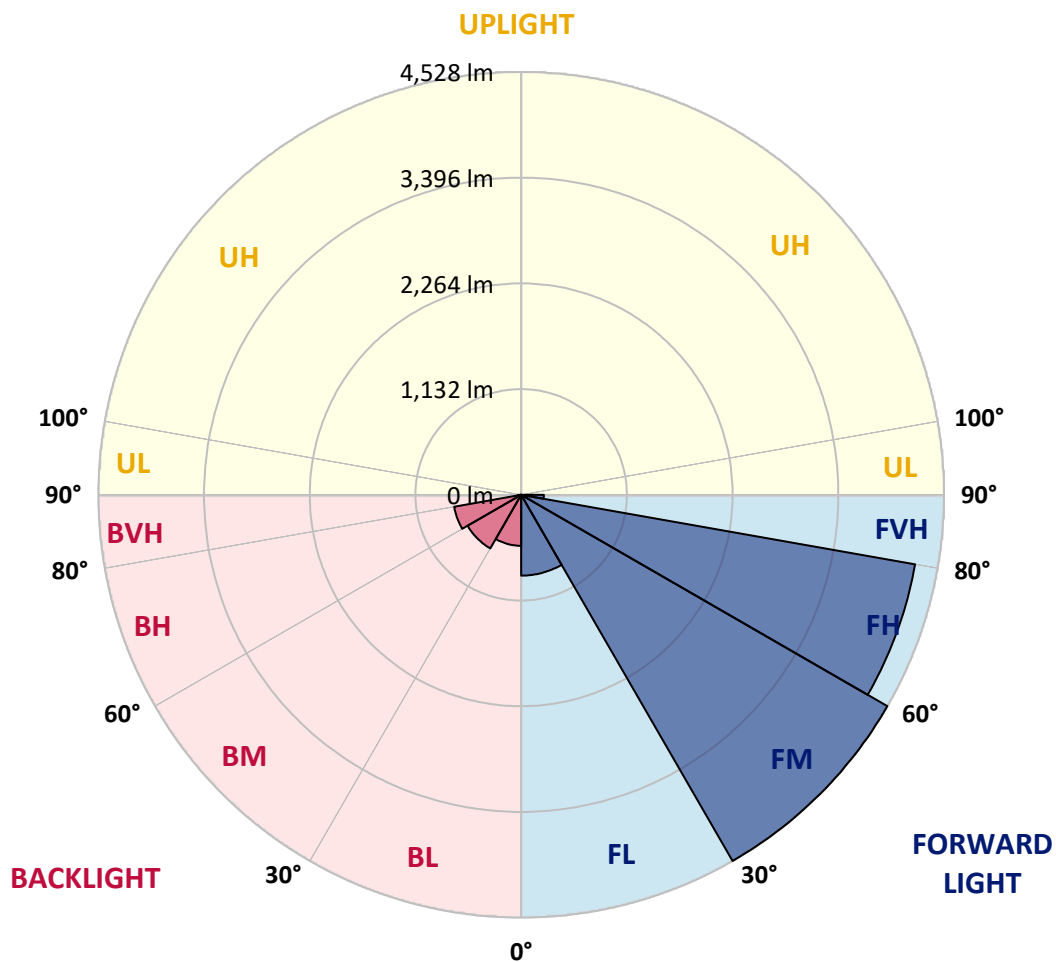
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	865.2	7.3			
FM (30°-60°)	4527.6	38.1			
FH (60°-80°)	4283.4	36.0			G2/5000
FVH (80°-90°)	243.0	2.0			G3/500
BL (0°-30°)	546.0	4.6	B2/1000		
BM (30°-60°)	661.9	5.6	B1/1000		
BH (60°-80°)	728.6	6.1	B2/1000		G2/1000
BVH (80°-90°)	33.3	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	2564.4	2564.4	2564.4	2564.4	2564.4	2564.4	2564.4	2564.4	2564.4	2564.4	2564.4
2.5°	2458.9	2463.0	2475.9	2484.1	2521.1	2536.9	2548.0	2559.2	2560.9	2566.2	2560.9
5°	2200.9	2209.7	2233.8	2260.7	2332.3	2388.6	2447.8	2509.3	2520.5	2560.3	2571.5
7.5°	2001.0	1998.7	2018.6	2050.9	2124.1	2202.1	2305.9	2428.4	2452.5	2542.2	2585.6
10°	1855.0	1853.3	1874.4	1907.8	1977.6	2051.4	2168.7	2336.4	2370.4	2513.4	2599.0
12.5°	1747.2	1747.7	1768.8	1805.8	1876.7	1951.2	2070.2	2247.3	2290.6	2480.0	2613.1
15°	1675.6	1680.3	1697.3	1736.6	1805.8	1880.2	1996.9	2180.4	2229.1	2453.6	2628.9
17.5°	1651.6	1659.2	1665.1	1693.8	1753.0	1827.5	1941.8	2131.2	2182.8	2435.5	2643.0
20°	1673.9	1682.7	1671.5	1681.5	1719.0	1784.7	1898.4	2092.5	2145.2	2414.9	2644.8
22.5°	1769.4	1777.6	1744.8	1716.1	1713.7	1753.6	1862.7	2062.0	2116.5	2399.7	2645.4
25°	1937.7	1943.0	1887.9	1821.0	1755.9	1742.5	1837.4	2040.9	2098.9	2386.2	2634.2
27.5°	2144.1	2148.2	2084.9	1986.4	1855.6	1768.8	1828.6	2028.6	2089.0	2374.5	2615.5
30°	2395.0	2414.4	2329.3	2205.0	2014.5	1846.8	1846.2	2022.1	2077.8	2354.6	2578.5
32.5°	2651.8	2660.0	2601.4	2475.3	2228.5	1984.0	1895.5	2026.8	2074.9	2330.5	2531.6
35°	2912.1	2922.7	2884.6	2783.1	2521.1	2185.1	1991.6	2054.4	2093.1	2322.3	2498.8
37.5°	3249.2	3263.3	3210.5	3093.3	2876.9	2457.7	2151.7	2123.6	2148.8	2345.8	2488.8
40°	3782.2	3775.7	3621.5	3446.8	3266.2	2806.6	2380.4	2240.8	2255.5	2421.4	2519.3
42.5°	4402.5	4386.6	4121.1	3846.7	3694.2	3228.7	2682.9	2444.3	2441.3	2570.3	2626.6
45°	4897.3	4884.4	4645.2	4306.9	4185.0	3709.5	3073.9	2747.4	2725.7	2806.6	2824.8
47.5°	5165.2	5165.8	5028.1	4751.9	4749.0	4320.4	3576.4	3185.9	3148.4	3186.5	3167.2
50°	5071.4	5083.7	5069.1	4981.1	5263.7	5121.3	4232.5	3797.4	3721.8	3759.3	3684.9
52.5°	4617.6	4633.5	4720.2	4855.1	5480.1	6089.2	5196.3	4557.3	4469.3	4455.8	4373.2
55°	3813.3	3832.6	4009.7	4376.1	5300.1	6739.4	6717.2	5525.8	5385.7	5258.5	5223.3
57.5°	2628.4	2660.6	2945.5	3489.6	4717.9	6935.9	8528.2	6906.5	6621.6	6177.2	6185.4
60°	1481.6	1519.1	1855.0	2349.3	3543.0	6722.4	9906.0	8997.8	8396.3	7253.0	7314.0
62.5°	942.2	982.6	1237.7	1632.2	2125.9	5573.3	10470.6	11905.3	11141.3	8579.2	8639.0
65°	762.8	780.4	900.5	1347.3	1543.7	3357.7	10042.0	14300.3	14015.3	10262.5	9983.4
67.5°	744.6	750.5	812.6	1131.0	1480.4	1887.3	8009.9	14748.2	15064.2	11834.3	10543.3
70°	735.8	756.3	915.8	1079.4	1417.7	1591.8	4813.5	13520.5	14019.4	12245.3	9798.1
72.5°	357.1	355.9	460.8	976.2	1597.1	1651.0	2473.0	10939.6	11440.3	10609.0	8051.6
75°	287.9	263.2	251.5	357.6	1535.5	1704.9	1576.0	7527.4	7889.7	7112.9	4949.5
77.5°	273.2	243.9	223.4	224.0	649.0	1808.1	1335.0	4166.2	4271.7	3212.9	1356.1
80°	226.3	199.3	184.7	208.1	314.3	1721.9	1443.5	1885.5	1730.2	789.2	451.4
82.5°	157.1	143.1	139.0	174.7	251.5	1227.1	1678.6	1013.1	849.5	395.2	278.5
85°	100.3	85.6	95.0	127.2	195.8	566.4	1729.0	789.7	627.9	250.9	157.1
87.5°	46.3	37.5	46.9	70.4	127.8	195.2	1645.1	887.1	646.7	132.5	99.1
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°	2564.4	2564.4	2564.4	2564.4	2564.4	2564.4	2564.4	2564.4	2564.4	2564.4	2564.4
2.5°	2565.6	2554.5	2545.7	2529.3	2511.1	2493.5	2477.7	2457.7	2451.9	2446.6	2454.8
5°	2573.8	2562.7	2530.4	2480.0	2424.3	2372.1	2320.0	2275.4	2247.8	2232.6	2241.4
7.5°	2586.1	2570.3	2503.5	2410.8	2310.6	2219.1	2124.7	2049.1	1993.4	1967.0	1974.6
10°	2597.3	2566.8	2457.7	2318.8	2172.2	2036.2	1887.3	1764.2	1672.7	1624.6	1636.3
12.5°	2602.0	2553.3	2393.8	2203.9	2002.8	1803.4	1584.2	1400.1	1268.7	1220.7	1210.7
15°	2606.7	2538.1	2323.5	2073.1	1798.2	1516.2	1208.9	988.5	879.4	855.4	850.1
17.5°	2607.8	2511.7	2243.7	1931.3	1558.4	1174.3	826.7	686.5	687.1	725.8	730.5
20°	2595.5	2472.4	2147.0	1754.8	1271.1	812.0	567.5	543.5	632.0	728.8	740.5
22.5°	2567.4	2420.2	2037.4	1549.0	942.2	534.7	439.1	465.5	579.8	698.3	711.8
25°	2531.6	2356.9	1907.8	1310.4	623.8	382.3	368.2	400.4	477.8	557.0	564.6
27.5°	2483.0	2281.9	1762.4	1037.2	405.1	314.8	324.2	345.9	377.6	412.8	416.3
30°	2420.2	2192.2	1607.0	756.3	306.0	283.2	296.7	308.4	321.9	341.8	343.6
32.5°	2348.1	2106.0	1447.6	522.4	271.5	266.8	277.3	283.2	293.7	306.0	307.2
35°	2287.7	2023.9	1282.2	369.4	256.8	254.5	261.5	263.8	273.8	287.3	288.5
37.5°	2253.1	1957.0	1111.6	297.8	246.8	243.3	247.4	247.4	261.5	281.4	284.4
40°	2255.5	1920.1	941.0	269.1	238.6	233.9	234.5	234.5	252.7	274.4	276.1
42.5°	2319.4	1929.5	789.7	258.0	232.2	226.9	224.0	225.7	241.0	255.0	256.2
45°	2469.5	1995.7	647.9	250.9	225.7	224.0	217.5	216.9	222.8	229.2	229.2
47.5°	2715.7	2126.5	551.7	246.2	220.4	219.9	212.2	204.6	204.0	206.4	206.4
50°	3116.1	2351.6	487.2	241.0	216.9	212.2	203.4	191.7	187.6	189.4	189.4
52.5°	3716.5	2753.2	462.6	233.9	209.3	201.7	191.7	180.0	176.5	177.1	177.1
55°	4503.9	3370.0	459.1	225.7	201.1	188.8	180.6	171.8	167.7	168.9	168.9
57.5°	5466.0	4223.1	521.8	212.8	190.0	175.9	171.2	165.3	162.4	164.2	163.6
60°	6635.7	5339.4	773.9	199.3	178.8	164.2	164.2	159.5	157.1	158.9	158.3
62.5°	7983.0	6621.6	1088.2	189.4	167.1	154.8	157.1	154.8	152.4	153.6	153.0
65°	9177.8	7457.1	1019.0	181.8	155.4	146.0	150.1	148.9	147.2	148.3	147.7
67.5°	9212.4	7147.5	572.2	173.5	144.2	137.2	143.1	142.5	141.3	142.5	141.9
70°	8221.6	6035.3	322.5	158.3	132.5	126.6	134.8	134.3	133.1	135.4	134.8
72.5°	6587.0	4379.6	235.7	139.5	120.8	115.5	124.9	124.3	124.3	127.8	126.1
75°	3790.4	2253.7	188.2	119.6	108.5	104.4	112.6	113.2	114.3	119.0	115.5
77.5°	1080.5	702.4	153.6	101.4	93.2	91.5	99.7	100.8	101.4	106.7	102.0
80°	401.6	323.6	126.6	85.0	76.2	76.8	84.4	86.2	86.8	92.0	86.2
82.5°	256.2	213.4	102.6	65.7	59.8	59.2	68.6	70.9	70.9	71.5	68.0
85°	149.5	127.8	77.4	47.5	42.2	40.5	51.0	55.1	53.4	52.2	49.8
87.5°	100.3	87.9	47.5	26.4	22.9	21.7	29.9	32.8	31.7	29.9	28.1
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)