

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: P299101

Luminaire Tested: **GLNA-AF-02-LED-E1-SL2-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299101
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-SL2-7027
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Narrow OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10329.7 lumens
Efficiency: N/A
Efficacy: 91.4 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 - G2

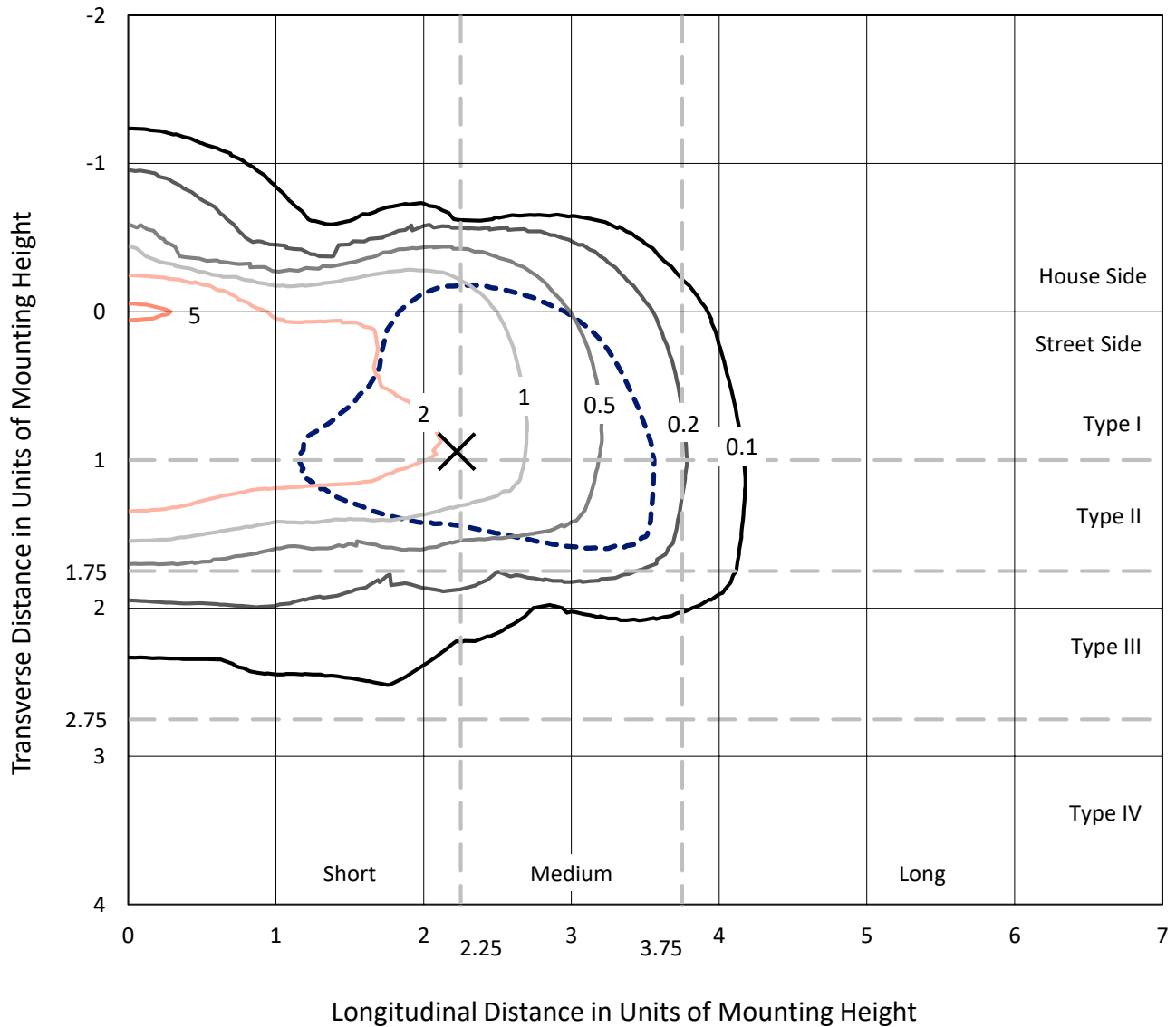
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P299101
 CATALOG NUMBER: GLNA-AF-02-LED-E1-SL2-7027

Iso-Footcandle Lines of Horizontal Illumination

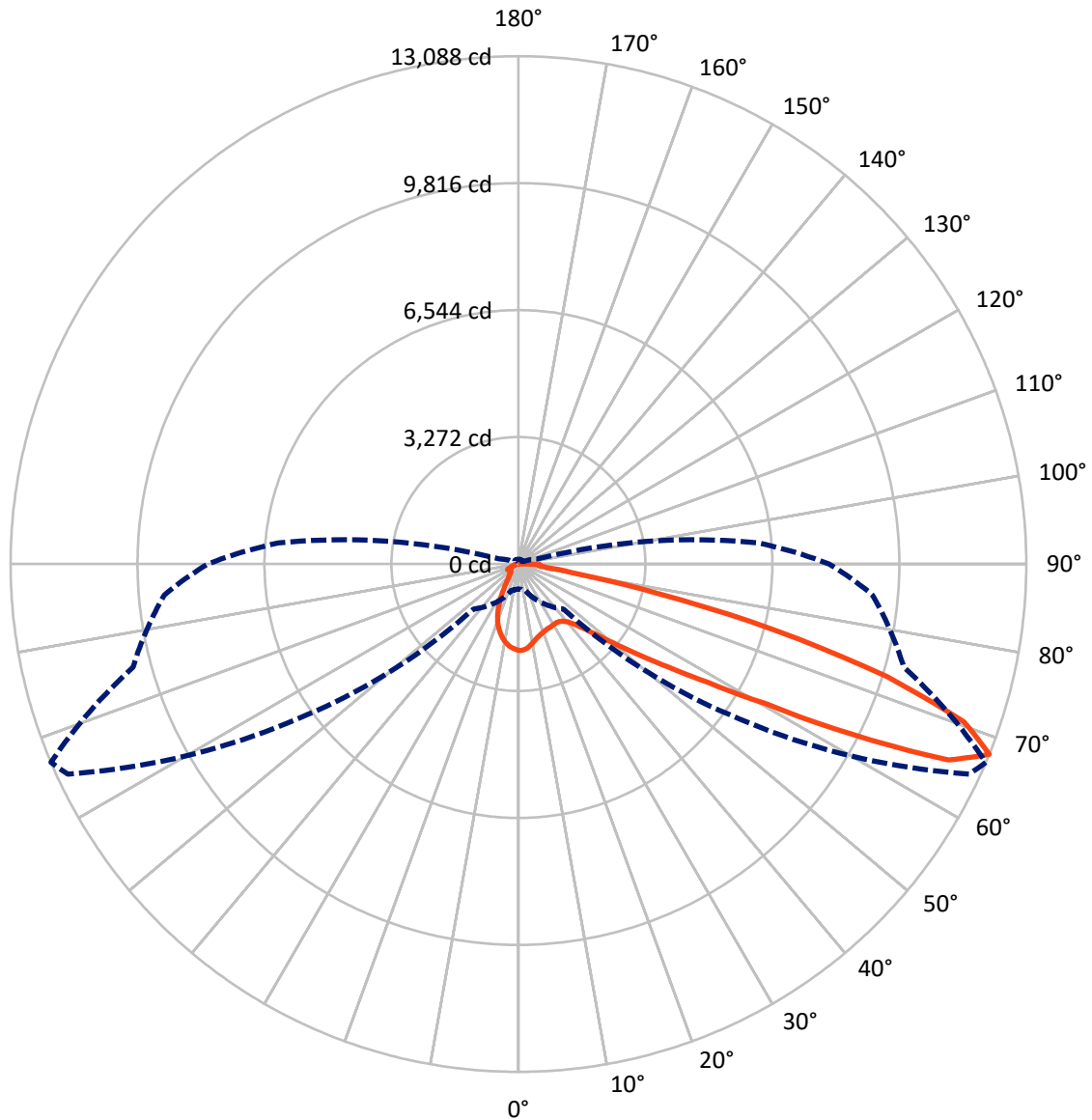
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 5.6 fc
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P299101
CATALOG NUMBER: GLNA-AF-02-LED-E1-SL2-7027

Luminous Intensity Polar Plot



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

REPORT NUMBER: P299101

CATALOG NUMBER: GLNA-AF-02-LED-E1-SL2-7027

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1711.5	0.0	1711.5
	% Fixture	16.6	0.0	16.6
Street Side	Lumens	8618.2	0.0	8618.2
	% Fixture	83.4	0.0	83.4
Total	Lumens	10329.7	0.0	10329.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	190.1	1.8
10°-20°	439.8	4.3
20°-30°	596.2	5.8
30°-40°	847.6	8.2
40°-50°	1418.0	13.7
50°-60°	2243.3	21.7
60°-70°	2857.7	27.7
70°-80°	1496.9	14.5
80°-90°	240.1	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°	10329.7	100.0
0°-180°	10329.7	100.0



REPORT NUMBER: P299101

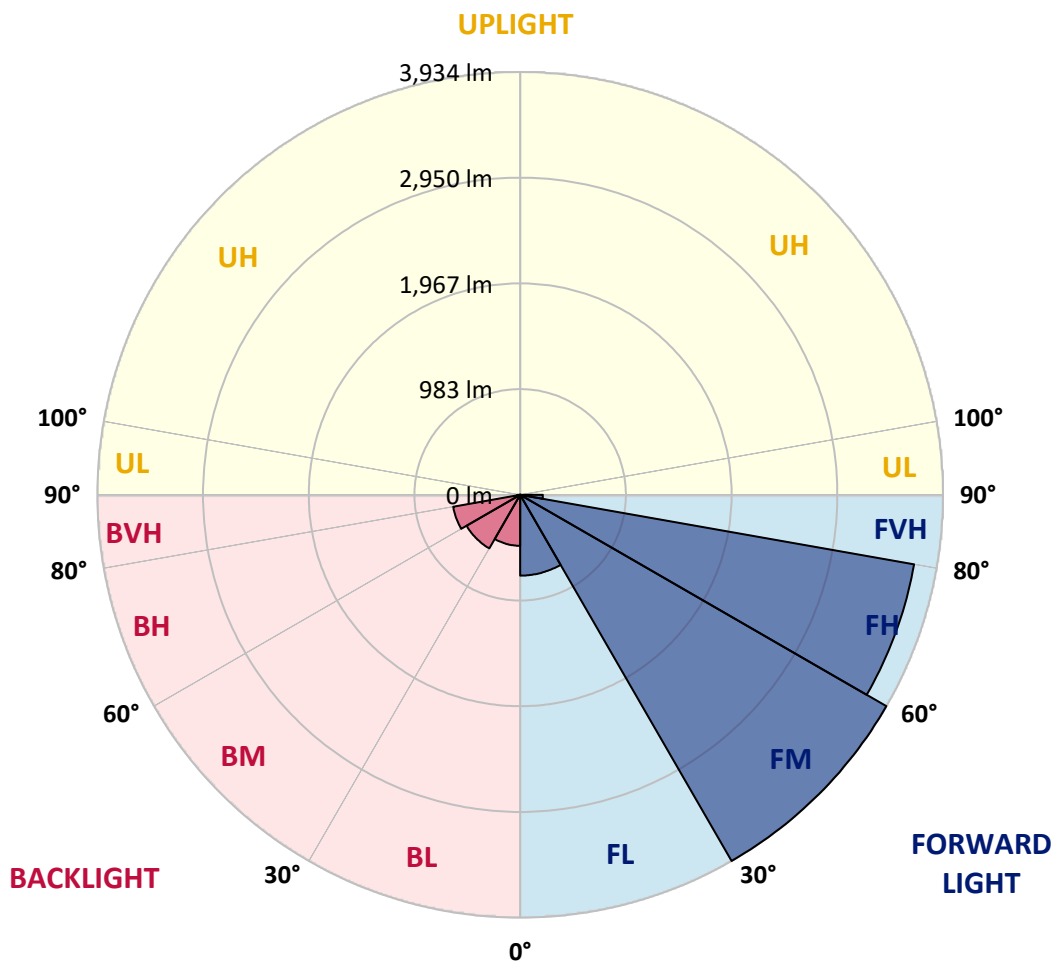
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	751.7	7.3			
FM	(30°-60°)	3933.8	38.1			
FH	(60°-80°)	3721.6	36.0			G2/5000
FVH	(80°-90°)	211.1	2.0			G2/225
BL	(0°-30°)	474.4	4.6	B1/500		
BM	(30°-60°)	575.1	5.6	B1/1000		
BH	(60°-80°)	633.0	6.1	B2/1000		G2/1000
BVH	(80°-90°)	29.0	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-G2

Type II Short





REPORT NUMBER: P299101

CATALOG NUMBER: GLNA-AF-02-LED-E1-SL2-7027

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	2228.1	2228.1	2228.1	2228.1	2228.1	2228.1	2228.1	2228.1	2228.1	2228.1	2228.1
2.5°	2136.4	2140.0	2151.2	2158.3	2190.4	2204.1	2213.8	2223.5	2225.0	2229.6	2225.0
5°	1912.3	1919.9	1940.8	1964.2	2026.4	2075.3	2126.7	2180.2	2189.9	2224.5	2234.2
7.5°	1738.6	1736.5	1753.8	1781.9	1845.5	1913.3	2003.4	2109.9	2130.8	2208.7	2246.4
10°	1611.7	1610.2	1628.5	1657.6	1718.2	1782.4	1884.2	2029.9	2059.5	2183.8	2258.1
12.5°	1518.0	1518.5	1536.8	1568.9	1630.6	1695.3	1798.7	1952.5	1990.2	2154.7	2270.4
15°	1455.8	1459.9	1474.7	1508.8	1568.9	1633.6	1735.0	1894.4	1936.7	2131.8	2284.1
17.5°	1435.0	1441.6	1446.7	1471.6	1523.1	1587.8	1687.1	1851.6	1896.5	2116.0	2296.3
20°	1454.3	1462.0	1452.3	1460.9	1493.5	1550.6	1649.4	1818.0	1863.9	2098.2	2297.9
22.5°	1537.4	1544.5	1516.0	1491.0	1489.0	1523.6	1618.3	1791.5	1838.9	2085.0	2298.4
25°	1683.5	1688.1	1640.2	1582.2	1525.6	1513.9	1596.4	1773.2	1823.6	2073.2	2288.7
27.5°	1862.9	1866.4	1811.4	1725.8	1612.2	1536.8	1588.8	1762.5	1815.0	2063.0	2272.4
30°	2080.9	2097.7	2023.8	1915.8	1750.3	1604.6	1604.1	1756.9	1805.3	2045.7	2240.3
32.5°	2304.0	2311.1	2260.2	2150.7	1936.2	1723.8	1646.9	1761.0	1802.7	2024.8	2199.6
35°	2530.2	2539.3	2506.2	2418.1	2190.4	1898.5	1730.4	1784.9	1818.5	2017.7	2171.0
37.5°	2823.1	2835.3	2789.4	2687.6	2499.6	2135.4	1869.5	1845.0	1866.9	2038.1	2162.4
40°	3286.1	3280.5	3146.5	2994.7	2837.8	2438.5	2068.1	1946.9	1959.6	2103.8	2188.9
42.5°	3825.0	3811.3	3580.5	3342.1	3209.7	2805.2	2331.0	2123.7	2121.1	2233.2	2282.1
45°	4255.0	4243.8	4035.9	3742.0	3636.1	3222.9	2670.8	2387.0	2368.2	2438.5	2454.3
47.5°	4487.8	4488.3	4368.6	4128.6	4126.1	3753.7	3107.3	2768.0	2735.4	2768.6	2751.7
50°	4406.3	4417.0	4404.2	4327.8	4573.3	4449.6	3677.3	3299.3	3233.6	3266.2	3201.5
52.5°	4012.0	4025.7	4101.1	4218.3	4761.3	5290.6	4514.8	3959.5	3883.1	3871.4	3799.6
55°	3313.1	3329.9	3483.7	3802.1	4604.9	5855.5	5836.1	4801.0	4679.3	4568.8	4538.2
57.5°	2283.6	2311.6	2559.2	3031.9	4099.1	6026.1	7409.7	6000.7	5753.1	5367.0	5374.1
60°	1287.2	1319.8	1611.7	2041.1	3078.3	5840.7	8606.7	7817.7	7295.0	6301.7	6354.7
62.5°	818.6	853.7	1075.3	1418.2	1847.1	4842.3	9097.3	10343.8	9680.0	7454.0	7505.9
65°	662.7	678.0	782.4	1170.6	1341.2	2917.3	8724.9	12424.6	12177.1	8916.4	8674.0
67.5°	646.9	652.0	706.0	982.6	1286.2	1639.7	6959.3	12813.8	13088.4	10282.1	9160.4
70°	639.3	657.1	795.7	937.8	1231.7	1383.0	4182.1	11747.1	12180.6	10639.2	8513.0
72.5°	310.2	309.2	400.4	848.1	1387.6	1434.5	2148.6	9504.8	9939.8	9217.5	6995.5
75°	250.1	228.7	218.5	310.7	1334.1	1481.3	1369.3	6540.1	6854.9	6180.0	4300.3
77.5°	237.4	211.9	194.1	194.6	563.9	1571.0	1159.9	3619.8	3711.4	2791.5	1178.2
80°	196.6	173.2	160.5	180.8	273.0	1496.1	1254.1	1638.2	1503.2	685.6	392.2
82.5°	136.5	124.3	120.7	151.8	218.5	1066.2	1458.4	880.2	738.1	343.3	242.0
85°	87.1	74.4	82.5	110.5	170.1	492.1	1502.2	686.2	545.6	218.0	136.5
87.5°	40.2	32.6	40.8	61.1	111.0	169.6	1429.4	770.7	561.9	115.1	86.1
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: P299101

CATALOG NUMBER: GLNA-AF-02-LED-E1-SL2-7027

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2228.1	2228.1	2228.1	2228.1	2228.1	2228.1	2228.1	2228.1	2228.1	2228.1	2228.1
2.5°	2229.1	2219.4	2211.8	2197.5	2181.7	2166.5	2152.7	2135.4	2130.3	2125.7	2132.8
5°	2236.2	2226.6	2198.5	2154.7	2106.3	2061.0	2015.7	1977.0	1953.0	1939.8	1947.4
7.5°	2246.9	2233.2	2175.1	2094.6	2007.5	1928.1	1846.0	1780.3	1731.9	1709.0	1715.6
10°	2256.6	2230.1	2135.4	2014.7	1887.3	1769.1	1639.7	1532.8	1453.3	1411.5	1421.7
12.5°	2260.7	2218.4	2079.9	1914.8	1740.1	1566.9	1376.4	1216.4	1102.3	1060.6	1051.9
15°	2264.8	2205.2	2018.7	1801.2	1562.3	1317.3	1050.4	858.8	764.1	743.2	738.6
17.5°	2265.8	2182.2	1949.5	1677.9	1354.0	1020.3	718.2	596.5	597.0	630.6	634.7
20°	2255.1	2148.1	1865.4	1524.6	1104.4	705.5	493.1	472.2	549.1	633.2	643.4
22.5°	2230.6	2102.8	1770.1	1345.8	818.6	464.6	381.5	404.5	503.8	606.7	618.4
25°	2199.6	2047.8	1657.6	1138.5	542.0	332.1	319.9	347.9	415.2	483.9	490.5
27.5°	2157.3	1982.6	1531.2	901.1	352.0	273.5	281.7	300.5	328.0	358.6	361.7
30°	2102.8	1904.6	1396.3	657.1	265.9	246.0	257.8	267.9	279.7	297.0	298.5
32.5°	2040.1	1829.7	1257.7	453.9	235.8	231.8	240.9	246.0	255.2	265.9	266.9
35°	1987.7	1758.4	1114.0	320.9	223.1	221.1	227.2	229.2	237.9	249.6	250.6
37.5°	1957.6	1700.4	965.8	258.8	214.5	211.4	215.0	215.0	227.2	244.5	247.1
40°	1959.6	1668.3	817.6	233.8	207.3	203.2	203.8	203.8	219.5	238.4	239.9
42.5°	2015.2	1676.4	686.2	224.1	201.7	197.1	194.6	196.1	209.4	221.6	222.6
45°	2145.6	1734.0	562.9	218.0	196.1	194.6	189.0	188.5	193.6	199.2	199.2
47.5°	2359.5	1847.6	479.3	213.9	191.5	191.0	184.4	177.8	177.3	179.3	179.3
50°	2707.4	2043.2	423.3	209.4	188.5	184.4	176.8	166.6	163.0	164.5	164.5
52.5°	3229.1	2392.1	401.9	203.2	181.9	175.2	166.6	156.4	153.3	153.8	153.8
55°	3913.2	2928.0	398.9	196.1	174.7	164.0	156.9	149.3	145.7	146.7	146.7
57.5°	4749.1	3669.2	453.4	184.9	165.0	152.8	148.7	143.6	141.1	142.6	142.1
60°	5765.3	4639.1	672.4	173.2	155.4	142.6	142.6	138.6	136.5	138.0	137.5
62.5°	6935.9	5753.1	945.4	164.5	145.2	134.5	136.5	134.5	132.4	133.5	133.0
65°	7974.1	6479.0	885.3	157.9	135.0	126.8	130.4	129.4	127.9	128.9	128.4
67.5°	8004.1	6210.0	497.2	150.8	125.3	119.2	124.3	123.8	122.8	123.8	123.3
70°	7143.2	5243.7	280.2	137.5	115.1	110.0	117.2	116.7	115.6	117.7	117.2
72.5°	5723.0	3805.2	204.8	121.2	104.9	100.4	108.5	108.0	108.0	111.0	109.5
75°	3293.2	1958.1	163.5	103.9	94.2	90.7	97.8	98.3	99.3	103.4	100.4
77.5°	938.8	610.3	133.5	88.1	81.0	79.5	86.6	87.6	88.1	92.7	88.6
80°	348.9	281.2	110.0	73.9	66.2	66.7	73.4	74.9	75.4	80.0	74.9
82.5°	222.6	185.4	89.1	57.1	52.0	51.4	59.6	61.6	61.6	62.1	59.1
85°	129.9	111.0	67.2	41.3	36.7	35.1	44.3	47.9	46.4	45.3	43.3
87.5°	87.1	76.4	41.3	22.9	19.9	18.8	26.0	28.5	27.5	26.0	24.5
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)