

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: P299881

Luminaire Tested: **GLNA-AF-02-LED-E1-SL3-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299881
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24288)
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-SL3-7027-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Square Medium OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8519.3 lumens
Efficiency: N/A
Efficacy: 100.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G2

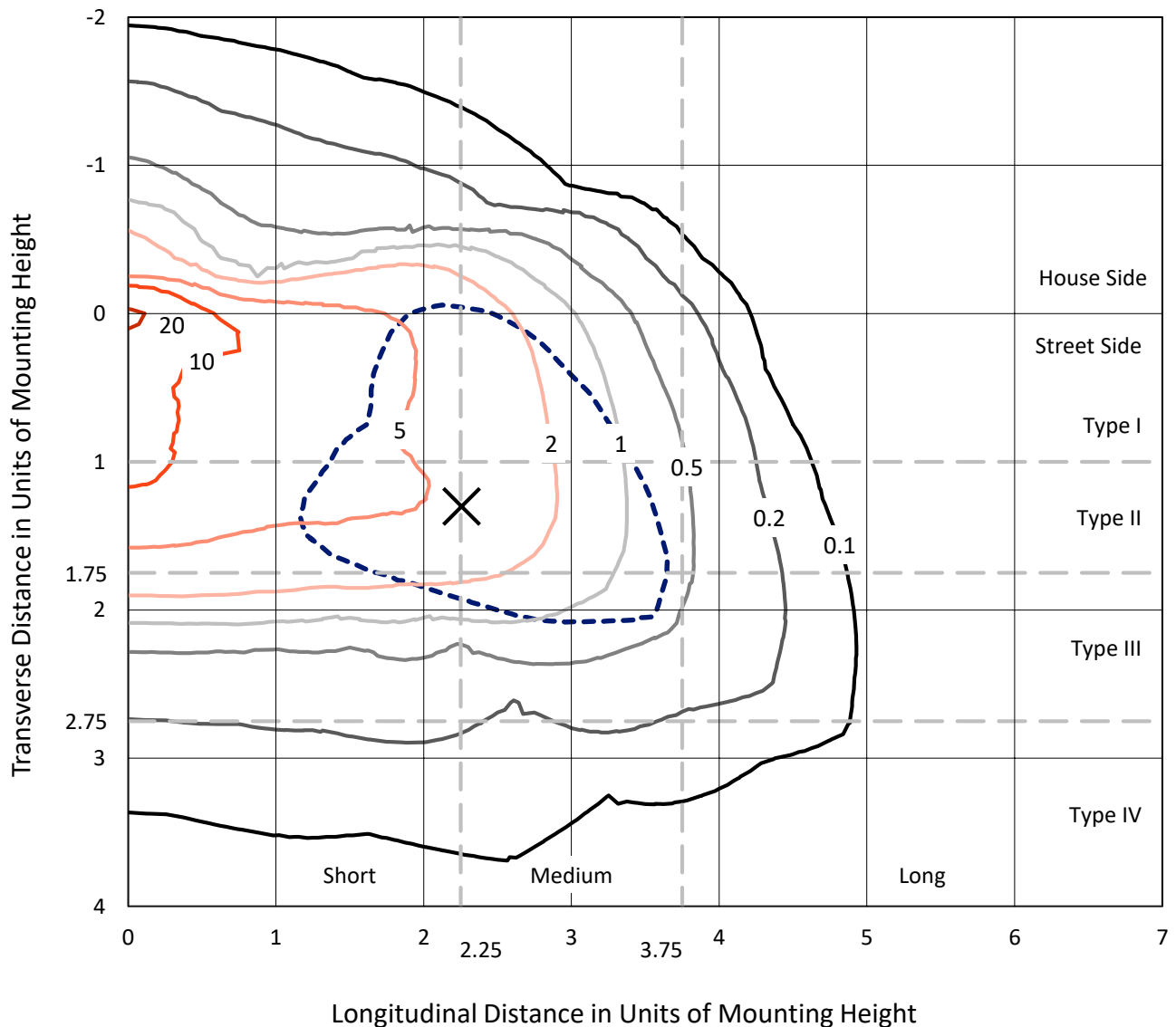
Input Watts (W): 85
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

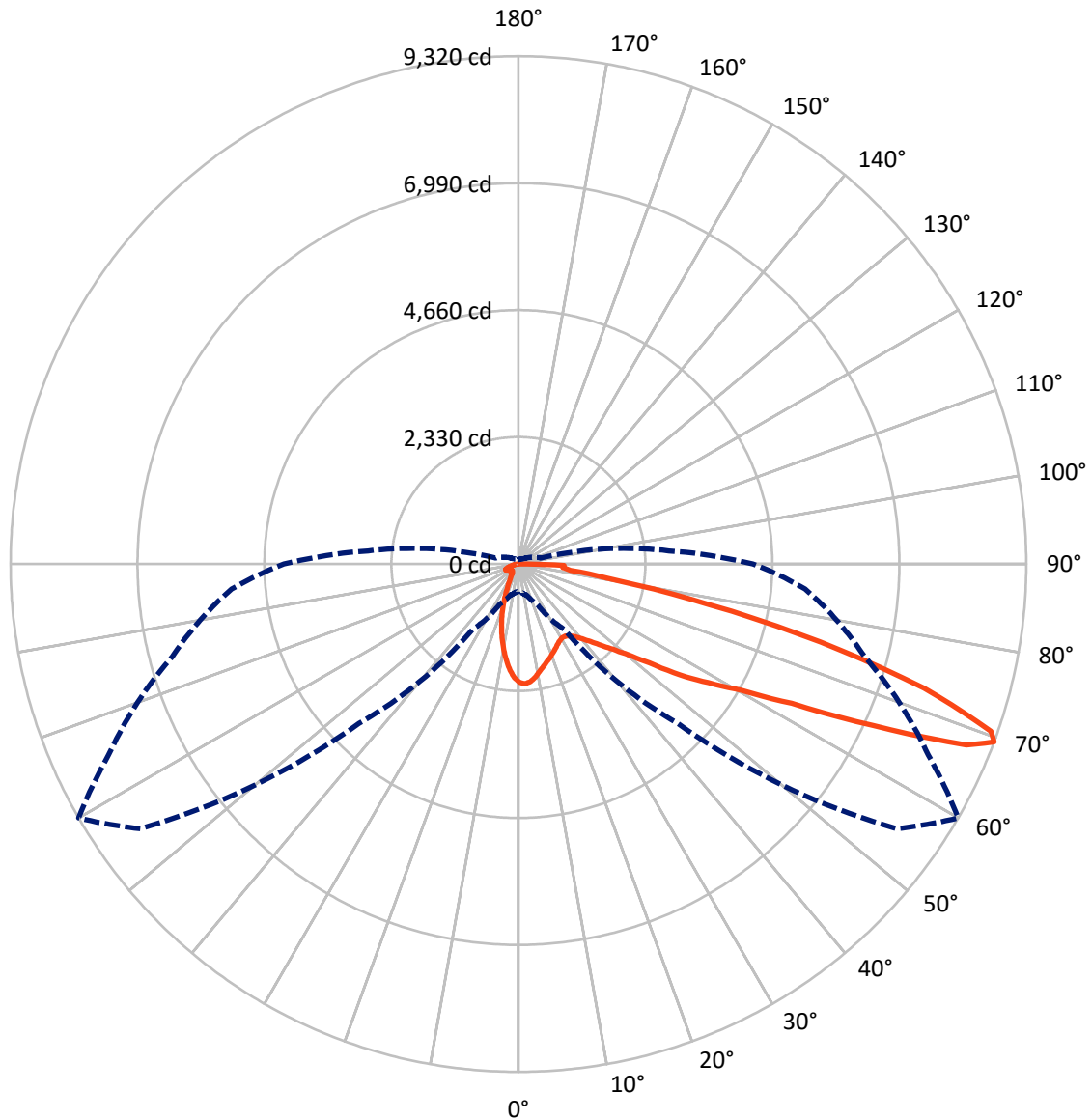
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 21.7 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1212.0	0.0	1212.0
	% Fixture	14.2	0.0	14.2
Street Side	Lumens	7307.3	0.0	7307.3
	% Fixture	85.8	0.0	85.8
Total	Lumens	8519.3	0.0	8519.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	183.6	2.2
10°-20°	391.1	4.6
20°-30°	498.3	5.8
30°-40°	685.0	8.0
40°-50°	1111.5	13.0
50°-60°	1782.6	20.9
60°-70°	2372.5	27.8
70°-80°	1281.0	15.0
80°-90°	213.7	2.5
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°	8519.3	100.0
0°-180°	8519.3	100.0



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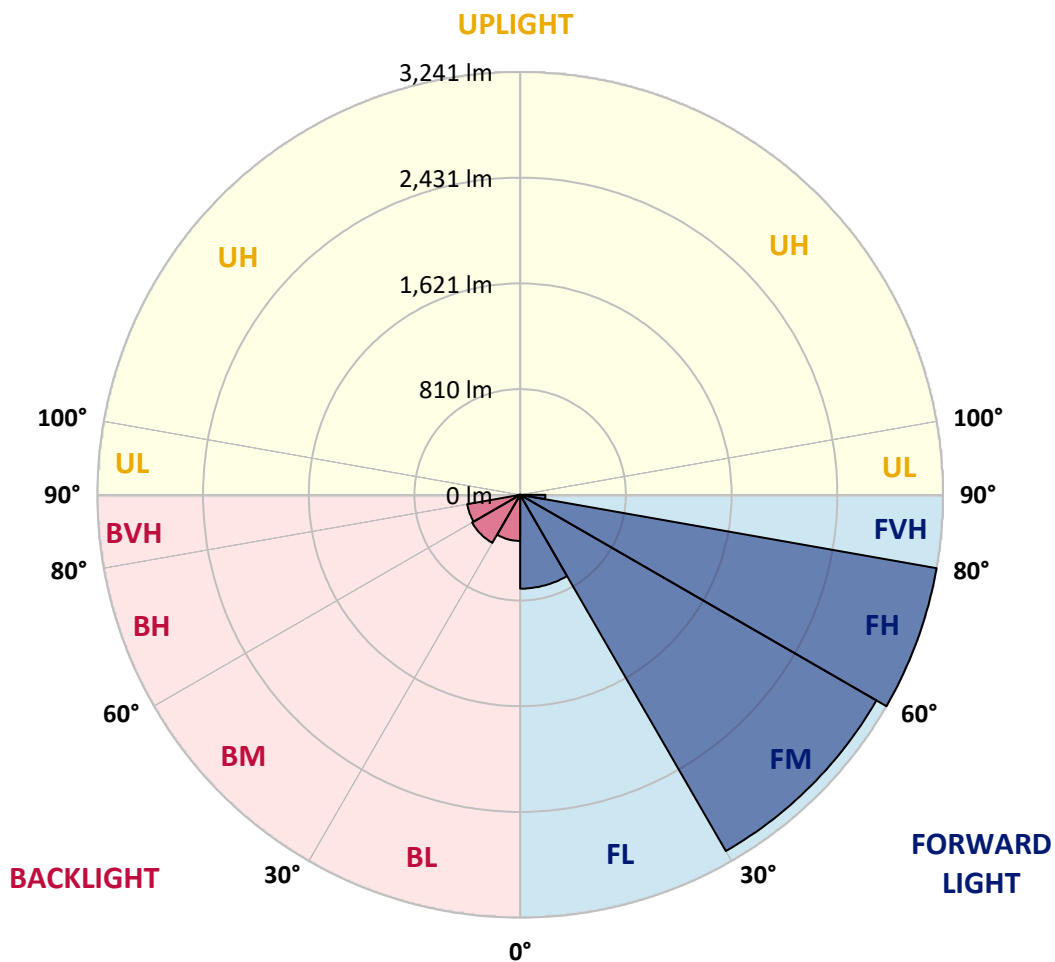
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	719.3	8.4			
FM (30°-60°)	3153.4	37.0			
FH (60°-80°)	3241.5	38.0			G2/5000
FVH (80°-90°)	193.2	2.3			G2/225
BL (0°-30°)	353.6	4.2	B1/500		
BM (30°-60°)	425.8	5.0	B1/1000		
BH (60°-80°)	412.1	4.8	B1/500		G1/500
BVH (80°-90°)	20.6	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	2170.9	2170.9	2170.9	2170.9	2170.9	2170.9	2170.9	2170.9	2170.9	2170.9	2170.9
2.5°	2215.3	2220.2	2218.2	2217.0	2220.7	2214.9	2203.0	2199.3	2193.5	2179.9	2156.9
5°	2132.2	2147.0	2146.2	2157.3	2175.8	2180.7	2175.4	2176.2	2165.5	2148.6	2110.4
7.5°	1988.6	1994.7	1998.0	2022.3	2056.0	2083.2	2106.2	2113.7	2108.7	2094.3	2044.9
10°	1840.4	1845.3	1853.2	1881.6	1924.4	1961.8	2005.4	2030.5	2041.2	2038.8	1983.6
12.5°	1713.2	1718.2	1728.5	1760.6	1811.6	1857.7	1921.1	1952.3	1977.9	1993.1	1933.8
15°	1599.2	1609.9	1619.8	1656.9	1714.1	1774.6	1846.2	1885.7	1925.2	1959.3	1889.8
17.5°	1510.3	1521.0	1526.8	1560.6	1621.5	1695.5	1779.5	1826.0	1875.4	1931.3	1846.2
20°	1458.9	1463.8	1461.4	1480.3	1535.0	1613.6	1713.2	1767.1	1826.8	1905.0	1802.5
22.5°	1444.5	1444.9	1435.9	1433.8	1469.2	1535.4	1642.4	1707.9	1781.1	1887.7	1765.1
25°	1479.5	1478.2	1453.6	1433.4	1437.1	1475.8	1574.1	1650.3	1742.9	1884.0	1736.3
27.5°	1557.3	1561.0	1524.3	1486.5	1449.0	1447.8	1522.3	1602.5	1711.6	1900.9	1723.9
30°	1666.3	1672.5	1633.4	1585.2	1514.9	1456.8	1502.1	1574.1	1692.2	1935.9	1721.9
32.5°	1785.7	1792.2	1762.6	1712.0	1619.8	1512.8	1516.1	1576.6	1691.4	1984.8	1735.9
35°	1912.8	1920.2	1905.0	1862.2	1759.7	1616.1	1569.6	1616.5	1718.2	2059.7	1773.3
37.5°	2054.8	2066.3	2070.4	2029.7	1920.2	1752.3	1657.3	1692.2	1778.7	2163.9	1842.0
40°	2259.3	2275.4	2274.2	2215.7	2104.2	1936.3	1792.7	1801.7	1872.9	2303.0	1951.9
42.5°	2651.1	2654.4	2551.9	2424.8	2306.7	2129.7	1952.3	1944.9	2003.0	2479.1	2113.7
45°	3149.5	3135.9	2907.9	2662.2	2518.2	2351.9	2160.2	2123.9	2168.0	2693.9	2316.1
47.5°	3563.1	3531.8	3243.7	2904.6	2742.1	2593.5	2404.2	2340.8	2365.1	2937.6	2577.9
50°	3706.7	3683.3	3444.6	3106.3	2954.0	2888.2	2704.6	2614.9	2621.5	3228.1	2884.5
52.5°	3675.9	3672.6	3513.3	3239.2	3152.4	3197.6	3130.2	3008.8	2944.6	3550.7	3215.3
55°	3603.0	3610.0	3552.4	3394.0	3379.1	3496.4	3686.1	3596.4	3396.8	3876.3	3557.3
57.5°	3349.9	3368.0	3494.8	3588.6	3744.2	3918.7	4133.9	4108.4	3883.7	4228.1	3963.9
60°	2698.9	2740.8	3080.8	3550.7	4119.9	4665.6	4761.9	4702.6	4385.8	4664.8	4501.0
62.5°	1891.0	1934.6	2338.8	3074.2	4058.2	5509.3	5884.6	5629.0	5106.8	5308.0	5196.1
65°	1012.4	1033.4	1342.0	2133.0	3426.1	5683.3	7525.4	7136.5	6248.4	6101.0	5790.7
67.5°	558.5	570.0	688.1	1077.0	2194.3	5004.7	8570.7	8864.5	7675.2	6629.0	5682.5
69°	505.0	515.7	593.0	815.7	1468.4	4138.0	8468.6	9320.1	8300.7	6576.8	5282.5
70°	493.8	503.7	573.3	751.9	1188.5	3410.8	8126.6	9203.6	8449.7	6389.5	4933.5
72.5°	444.5	455.2	522.7	675.3	1015.7	1700.5	6437.3	7781.8	7671.5	5540.1	3742.1
75°	414.4	424.3	538.7	661.3	972.5	1076.2	4243.8	5735.2	5639.3	3875.5	2017.8
77.5°	177.4	176.5	249.8	559.7	986.9	1042.0	2280.3	3582.8	3268.8	1656.4	579.4
80°	118.5	116.5	118.5	164.6	905.0	1047.8	1194.7	1818.6	1373.7	422.2	285.6
82.5°	102.1	100.4	104.1	100.4	318.1	1195.9	1015.7	967.1	653.1	239.9	141.6
85°	68.7	65.8	89.7	90.1	150.2	1062.6	1144.1	816.9	528.4	142.4	70.0
87.5°	32.9	32.1	52.3	63.8	88.1	431.7	1283.6	837.1	532.9	72.8	33.3
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°	2170.9	2170.9	2170.9	2170.9	2170.9	2170.9	2170.9	2170.9	2170.9	2170.9	2170.9
2.5°	2149.9	2133.0	2116.5	2096.8	2076.2	2053.2	2041.6	2030.1	2027.2	2023.9	2012.4
5°	2090.6	2066.7	2025.6	1980.3	1932.6	1886.1	1850.7	1828.5	1811.6	1802.9	1787.7
7.5°	2014.1	1979.1	1907.1	1828.9	1748.6	1675.4	1612.0	1572.1	1534.2	1516.5	1496.4
10°	1941.2	1889.0	1777.0	1661.8	1546.6	1435.9	1331.7	1258.1	1192.6	1156.0	1130.1
12.5°	1878.7	1807.1	1651.9	1495.9	1337.9	1180.3	1024.3	901.7	799.2	745.3	717.7
15°	1817.8	1731.3	1533.0	1335.0	1132.1	917.7	712.8	573.7	488.9	455.2	443.6
17.5°	1762.6	1651.9	1413.6	1172.9	919.8	660.5	479.0	402.5	370.0	358.9	355.2
20°	1702.9	1571.7	1289.8	1003.3	698.4	461.7	374.1	340.3	327.2	323.9	322.2
22.5°	1645.3	1492.6	1171.2	821.8	501.7	356.4	321.4	307.4	305.4	308.2	308.2
25°	1596.4	1421.9	1043.2	632.1	368.3	300.0	287.7	284.4	292.2	302.9	304.9
27.5°	1559.7	1363.8	907.0	466.7	293.4	260.9	260.5	265.9	285.2	305.8	309.9
30°	1534.6	1308.7	761.3	336.6	246.1	229.6	236.2	247.7	276.1	305.4	313.2
32.5°	1521.9	1267.9	609.5	260.5	210.7	201.7	212.8	226.8	254.7	281.9	292.2
35°	1531.7	1237.9	466.3	217.3	186.0	179.0	190.5	204.1	220.6	232.1	239.9
37.5°	1568.8	1226.0	351.9	194.7	169.1	162.6	171.6	179.4	186.0	189.3	193.0
40°	1648.6	1238.7	281.9	183.1	159.7	151.4	155.1	158.0	162.1	165.4	167.1
42.5°	1766.3	1277.0	252.7	178.6	154.7	142.8	142.0	143.2	148.6	154.7	156.0
45°	1930.9	1344.5	250.6	181.5	152.3	135.8	132.1	133.7	142.0	151.4	153.1
47.5°	2141.2	1447.4	267.1	190.1	154.3	132.1	125.9	128.0	138.3	151.0	153.1
50°	2396.0	1591.0	294.7	202.9	163.4	132.9	123.9	125.1	135.8	149.8	151.9
52.5°	2696.8	1794.7	324.7	215.2	172.8	138.3	125.5	122.6	132.5	144.9	147.3
55°	3031.4	2056.0	355.6	226.3	177.8	144.9	128.8	119.3	126.3	136.6	138.7
57.5°	3442.1	2421.5	409.1	237.0	181.1	149.4	132.1	116.1	118.5	125.9	127.6
60°	3998.1	2938.4	503.3	254.7	188.5	151.0	131.7	113.2	110.7	114.8	115.6
62.5°	4664.4	3499.7	581.9	277.0	200.8	152.3	129.2	111.1	104.1	104.1	104.9
65°	5059.9	3649.9	538.3	295.5	211.1	151.0	126.3	109.1	99.2	94.7	95.1
67.5°	4724.5	3210.0	461.3	299.2	210.7	145.3	121.8	105.4	94.2	87.2	86.8
69°	4304.3	2769.6	426.8	289.3	200.8	137.9	116.1	101.2	90.5	83.1	82.7
70°	3965.6	2500.9	404.1	278.6	190.1	132.5	111.5	97.5	87.7	80.7	79.8
72.5°	2883.2	1638.7	345.3	239.5	156.8	111.1	96.3	85.6	78.2	74.1	73.3
75°	1440.8	781.5	280.3	194.2	120.2	88.9	79.0	71.6	67.9	67.1	66.7
77.5°	473.3	358.0	200.4	144.9	89.3	69.5	63.8	58.4	57.6	60.1	59.3
80°	260.1	208.2	127.2	95.9	60.9	51.0	50.2	47.3	48.6	52.7	51.9
82.5°	132.5	108.2	78.6	57.6	41.2	36.6	39.9	38.3	39.9	43.6	43.2
85°	65.4	59.3	49.8	35.0	27.2	23.5	28.4	29.6	30.5	33.3	33.3
87.5°	37.9	35.0	26.3	16.5	13.6	12.3	16.5	16.0	18.9	20.6	20.2
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)