

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: P299162

Luminaire Tested: **GLNA-AF-02-LED-E1-SL2-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299162
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-SL2-7030-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 3000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Narrow OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9290.7 lumens
Efficiency: N/A
Efficacy: 109.3 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

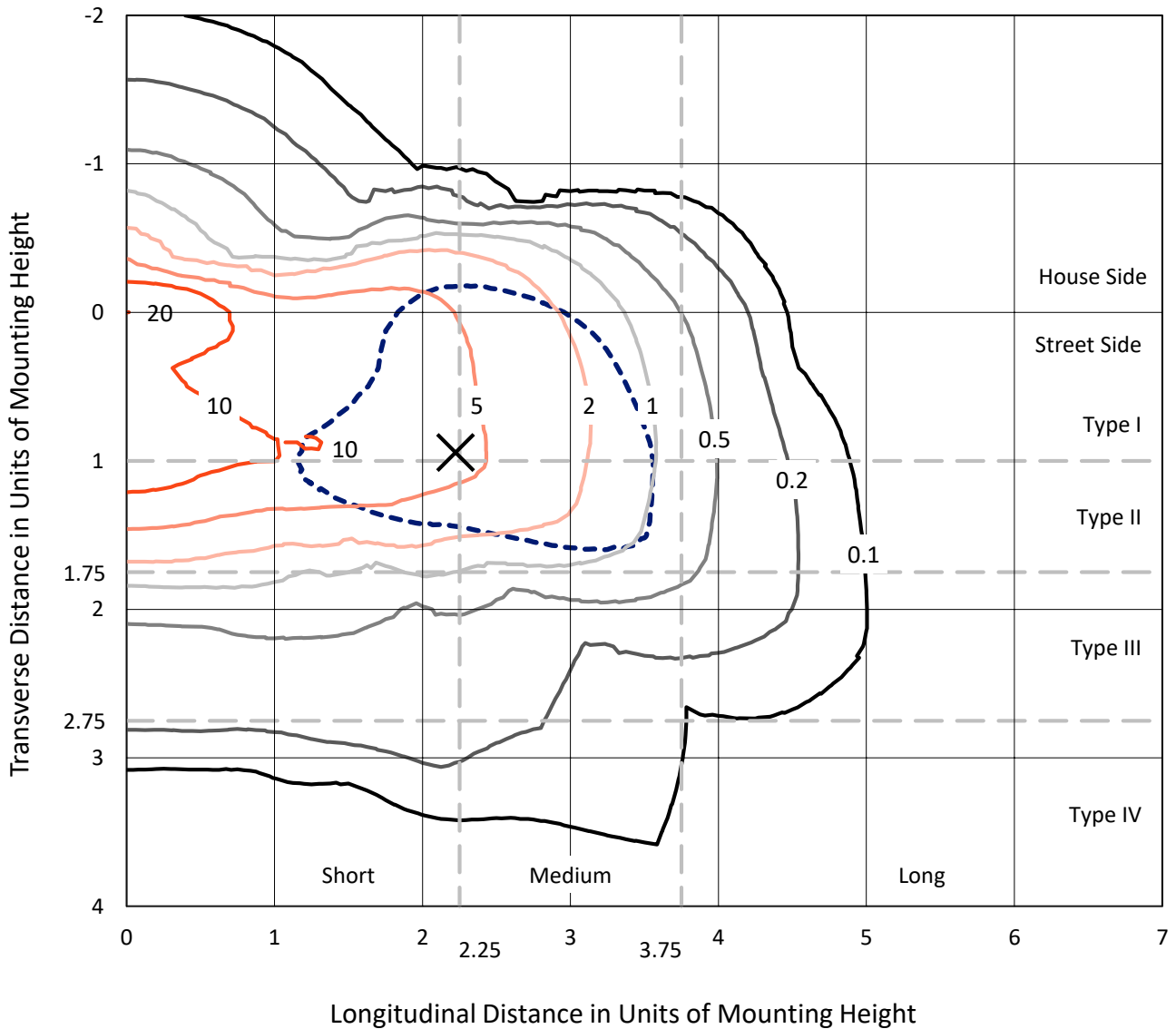
Input Watts (W): 85
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

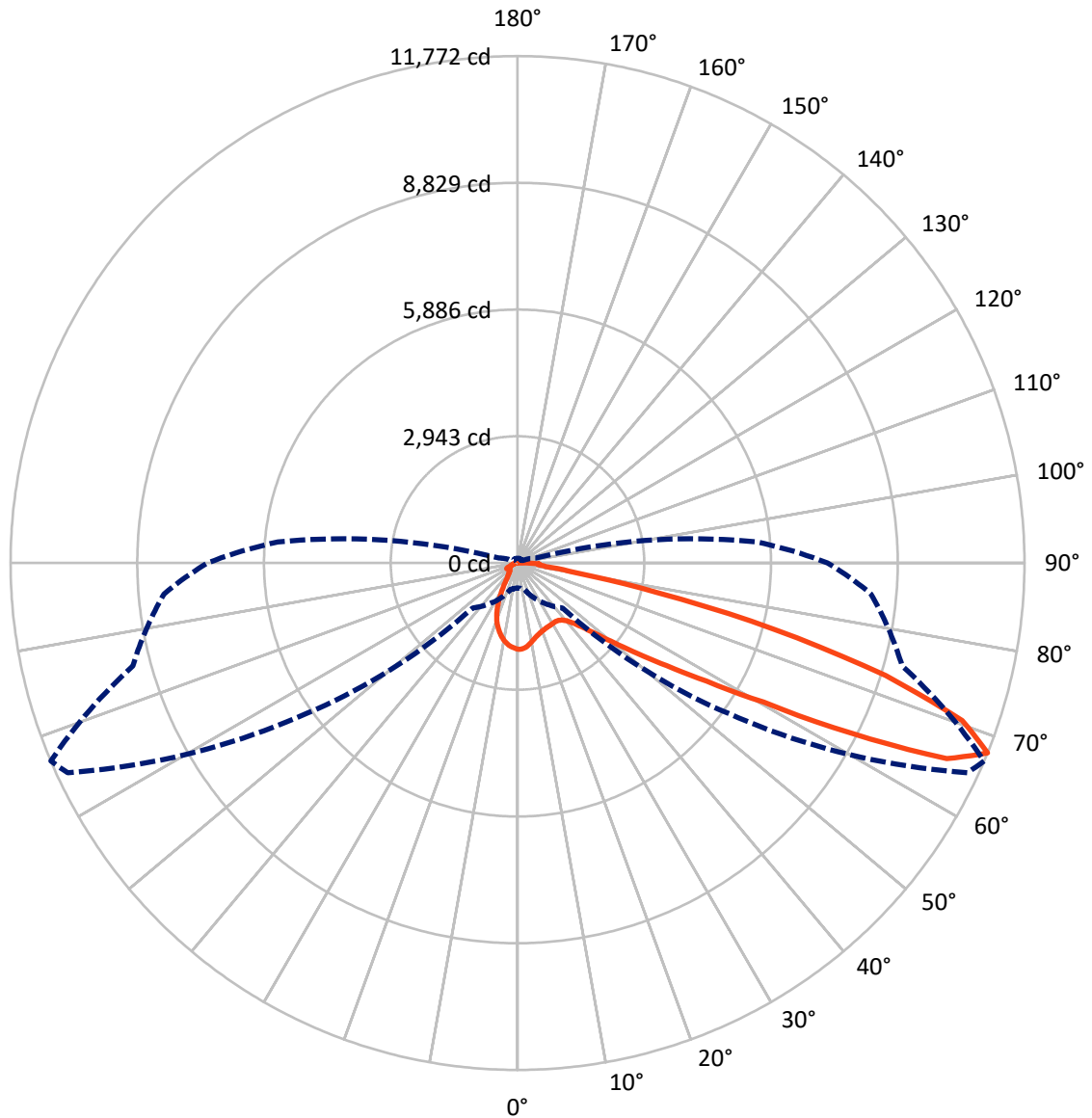
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 20 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	1539.4	0.0	1539.4
	% Fixture	16.6	0.0	16.6
Street Side	Lumens	7751.3	0.0	7751.3
	% Fixture	83.4	0.0	83.4
Total	Lumens	9290.7	0.0	9290.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	171.0	1.8
10°-20°	395.6	4.3
20°-30°	536.2	5.8
30°-40°	762.3	8.2
40°-50°	1275.4	13.7
50°-60°	2017.7	21.7
60°-70°	2570.3	27.7
70°-80°	1346.3	14.5
80°-90°	215.9	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°	9290.7	100.0
0°-180°	9290.7	100.0



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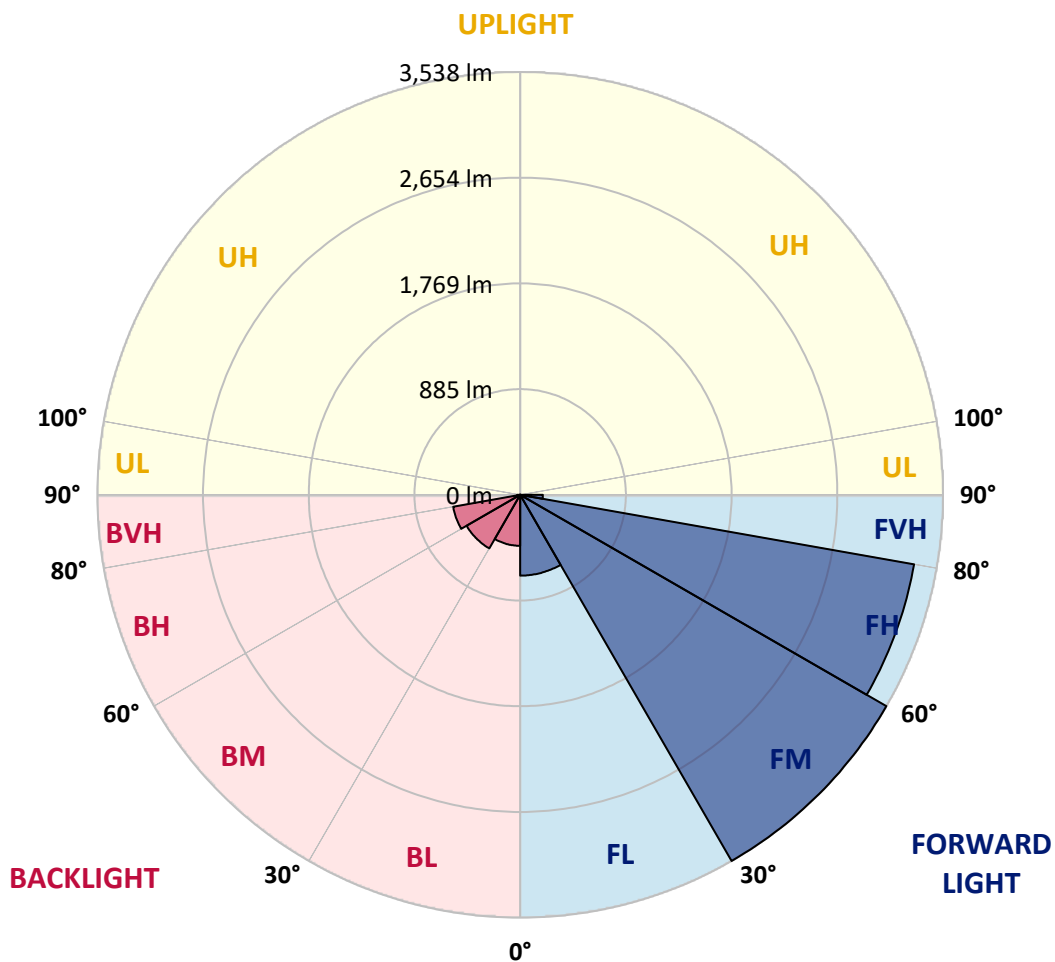
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	676.1	7.3			
FM (30°-60°)	3538.1	38.1			
FH (60°-80°)	3347.2	36.0			G2/5000
FVH (80°-90°)	189.9	2.0			G2/225
BL (0°-30°)	426.7	4.6	B1/500		
BM (30°-60°)	517.3	5.6	B1/1000		
BH (60°-80°)	569.4	6.1	B2/1000		G2/1000
BVH (80°-90°)	26.1	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	2004.0	2004.0	2004.0	2004.0	2004.0	2004.0	2004.0	2004.0	2004.0	2004.0	2004.0
2.5°	1921.5	1924.7	1934.8	1941.2	1970.1	1982.4	1991.2	1999.9	2001.2	2005.4	2001.2
5°	1719.9	1726.8	1745.6	1766.7	1822.5	1866.5	1912.8	1960.9	1969.6	2000.8	2009.5
7.5°	1563.7	1561.9	1577.4	1602.6	1659.9	1720.8	1801.9	1897.7	1916.5	1986.6	2020.5
10°	1449.6	1448.2	1464.7	1490.8	1545.4	1603.1	1694.7	1825.8	1852.3	1964.1	2031.0
12.5°	1365.3	1365.8	1382.3	1411.1	1466.6	1524.7	1617.8	1756.1	1790.0	1938.0	2042.0
15°	1309.4	1313.1	1326.4	1357.1	1411.1	1469.3	1560.5	1703.9	1741.9	1917.4	2054.4
17.5°	1290.6	1296.6	1301.2	1323.6	1369.9	1428.1	1517.4	1665.4	1705.7	1903.2	2065.4
20°	1308.0	1314.9	1306.2	1314.0	1343.3	1394.6	1483.5	1635.2	1676.4	1887.1	2066.7
22.5°	1382.7	1389.1	1363.5	1341.0	1339.2	1370.3	1455.6	1611.3	1653.9	1875.2	2067.2
25°	1514.2	1518.3	1475.3	1423.0	1372.2	1361.6	1435.9	1594.8	1640.2	1864.7	2058.5
27.5°	1675.5	1678.7	1629.2	1552.2	1450.1	1382.3	1429.0	1585.2	1632.4	1855.5	2043.8
30°	1871.6	1886.7	1820.3	1723.1	1574.2	1443.2	1442.7	1580.2	1623.7	1840.0	2015.0
32.5°	2072.2	2078.7	2032.8	1934.3	1741.5	1550.4	1481.2	1583.8	1621.4	1821.2	1978.3
35°	2275.7	2283.9	2254.1	2174.9	1970.1	1707.6	1556.4	1605.4	1635.6	1814.8	1952.7
37.5°	2539.1	2550.1	2508.9	2417.2	2248.2	1920.6	1681.4	1659.4	1679.1	1833.1	1944.9
40°	2955.6	2950.5	2830.0	2693.5	2552.4	2193.2	1860.1	1751.1	1762.5	1892.2	1968.7
42.5°	3440.3	3427.9	3220.4	3006.0	2886.8	2523.1	2096.5	1910.1	1907.8	2008.6	2052.5
45°	3827.0	3816.9	3630.0	3365.6	3270.3	2898.8	2402.1	2146.9	2130.0	2193.2	2207.4
47.5°	4036.4	4036.8	3929.2	3713.4	3711.1	3376.2	2794.8	2489.6	2460.3	2490.1	2475.0
50°	3963.1	3972.7	3961.2	3892.5	4113.3	4002.0	3307.4	2967.5	2908.4	2937.7	2879.5
52.5°	3608.4	3620.8	3688.6	3794.0	4282.4	4758.4	4060.6	3561.3	3492.5	3482.0	3417.4
55°	2979.9	2995.0	3133.3	3419.7	4141.7	5266.5	5249.1	4318.1	4208.6	4109.2	4081.7
57.5°	2053.9	2079.1	2301.8	2727.0	3686.8	5420.0	6664.4	5397.1	5174.4	4827.1	4833.6
60°	1157.8	1187.1	1449.6	1835.8	2768.6	5253.2	7741.0	7031.3	6561.3	5667.9	5715.5
62.5°	736.3	767.9	967.2	1275.5	1661.3	4355.2	8182.2	9303.3	8706.4	6704.2	6750.9
65°	596.1	609.8	703.7	1052.8	1206.3	2623.9	7847.3	11174.9	10952.2	8019.6	7801.5
67.5°	581.9	586.4	635.0	883.8	1156.8	1474.8	6259.3	11524.9	11771.9	9247.9	8239.0
70°	575.0	591.0	715.6	843.5	1107.8	1243.9	3761.5	10565.6	10955.4	9569.1	7656.7
72.5°	279.0	278.1	360.1	762.8	1248.0	1290.2	1932.5	8548.8	8940.0	8290.3	6291.9
75°	225.0	205.7	196.5	279.5	1199.9	1332.3	1231.5	5882.3	6165.4	5558.4	3867.8
77.5°	213.5	190.6	174.6	175.0	507.2	1413.0	1043.2	3255.7	3338.1	2510.7	1059.7
80°	176.8	155.8	144.3	162.6	245.6	1345.6	1128.0	1473.4	1352.0	616.7	352.8
82.5°	122.8	111.8	108.6	136.5	196.5	958.9	1311.7	791.7	663.9	308.8	217.6
85°	78.3	66.9	74.2	99.4	153.0	442.6	1351.1	617.1	490.7	196.1	122.8
87.5°	36.2	29.3	36.7	55.0	99.9	152.6	1285.6	693.2	505.3	103.5	77.4
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°	2004.0	2004.0	2004.0	2004.0	2004.0	2004.0	2004.0	2004.0	2004.0	2004.0	2004.0
2.5°	2004.9	1996.2	1989.3	1976.5	1962.3	1948.5	1936.2	1920.6	1916.0	1911.9	1918.3
5°	2011.3	2002.6	1977.4	1938.0	1894.5	1853.7	1812.9	1778.1	1756.6	1744.7	1751.5
7.5°	2020.9	2008.6	1956.3	1883.9	1805.6	1734.1	1660.4	1601.3	1557.7	1537.1	1543.1
10°	2029.6	2005.8	1920.6	1812.0	1697.5	1591.2	1474.8	1378.6	1307.1	1269.6	1278.7
12.5°	2033.3	1995.3	1870.7	1722.2	1565.1	1409.3	1237.9	1094.1	991.5	953.9	946.1
15°	2037.0	1983.4	1815.7	1620.0	1405.2	1184.8	944.7	772.5	687.2	668.5	664.3
17.5°	2037.9	1962.7	1753.4	1509.2	1217.8	917.7	646.0	536.5	537.0	567.2	570.9
20°	2028.3	1932.0	1677.8	1371.3	993.3	634.5	443.5	424.7	493.9	569.5	578.7
22.5°	2006.3	1891.3	1592.1	1210.5	736.3	417.8	343.2	363.8	453.1	545.7	556.2
25°	1978.3	1841.8	1490.8	1024.0	487.5	298.7	287.7	312.9	373.4	435.2	441.2
27.5°	1940.3	1783.1	1377.2	810.5	316.6	246.0	253.4	270.3	295.1	322.5	325.3
30°	1891.3	1713.0	1255.8	591.0	239.2	221.3	231.8	241.0	251.5	267.1	268.5
32.5°	1834.9	1645.7	1131.2	408.2	212.1	208.5	216.7	221.3	229.5	239.2	240.1
35°	1787.7	1581.6	1002.0	288.6	200.7	198.8	204.3	206.2	214.0	224.5	225.4
37.5°	1760.7	1529.3	868.7	232.7	192.9	190.1	193.3	193.3	204.3	219.9	222.2
40°	1762.5	1500.5	735.3	210.3	186.5	182.8	183.3	183.3	197.5	214.4	215.8
42.5°	1812.5	1507.8	617.1	201.6	181.4	177.3	175.0	176.4	188.3	199.3	200.2
45°	1929.8	1559.6	506.3	196.1	176.4	175.0	170.0	169.5	174.1	179.1	179.1
47.5°	2122.2	1661.7	431.1	192.4	172.3	171.8	165.9	159.9	159.4	161.3	161.3
50°	2435.1	1837.7	380.7	188.3	169.5	165.9	159.0	149.8	146.6	148.0	148.0
52.5°	2904.3	2151.5	361.5	182.8	163.6	157.6	149.8	140.7	137.9	138.4	138.4
55°	3519.6	2633.5	358.7	176.4	157.1	147.5	141.1	134.2	131.0	131.9	131.9
57.5°	4271.4	3300.1	407.8	166.3	148.4	137.4	133.8	129.2	126.9	128.3	127.8
60°	5185.4	4172.4	604.8	155.8	139.7	128.3	128.3	124.6	122.8	124.2	123.7
62.5°	6238.3	5174.4	850.3	148.0	130.6	121.0	122.8	121.0	119.1	120.0	119.6
65°	7172.0	5827.3	796.3	142.0	121.4	114.1	117.3	116.4	115.0	115.9	115.5
67.5°	7199.0	5585.4	447.2	135.6	112.7	107.2	111.8	111.3	110.4	111.3	110.9
70°	6424.7	4716.3	252.0	123.7	103.5	99.0	105.4	104.9	104.0	105.8	105.4
72.5°	5147.4	3422.4	184.2	109.0	94.4	90.3	97.6	97.1	97.1	99.9	98.5
75°	2962.0	1761.2	147.1	93.5	84.8	81.6	88.0	88.4	89.3	93.0	90.3
77.5°	844.4	548.9	120.0	79.3	72.8	71.5	77.9	78.8	79.3	83.4	79.7
80°	313.8	252.9	99.0	66.4	59.6	60.0	66.0	67.3	67.8	71.9	67.3
82.5°	200.2	166.8	80.2	51.3	46.7	46.3	53.6	55.4	55.4	55.9	53.1
85°	116.8	99.9	60.5	37.1	33.0	31.6	39.9	43.1	41.7	40.8	38.9
87.5°	78.3	68.7	37.1	20.6	17.9	17.0	23.4	25.7	24.7	23.4	22.0
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)