

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: P299170

Luminaire Tested: **GLNA-AF-03-LED-E1-T3-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299170
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24140)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-03-LED-E1-T3-800
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14633.5 lumens
Efficiency: N/A
Efficacy: 118.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B2 - U0 - G3

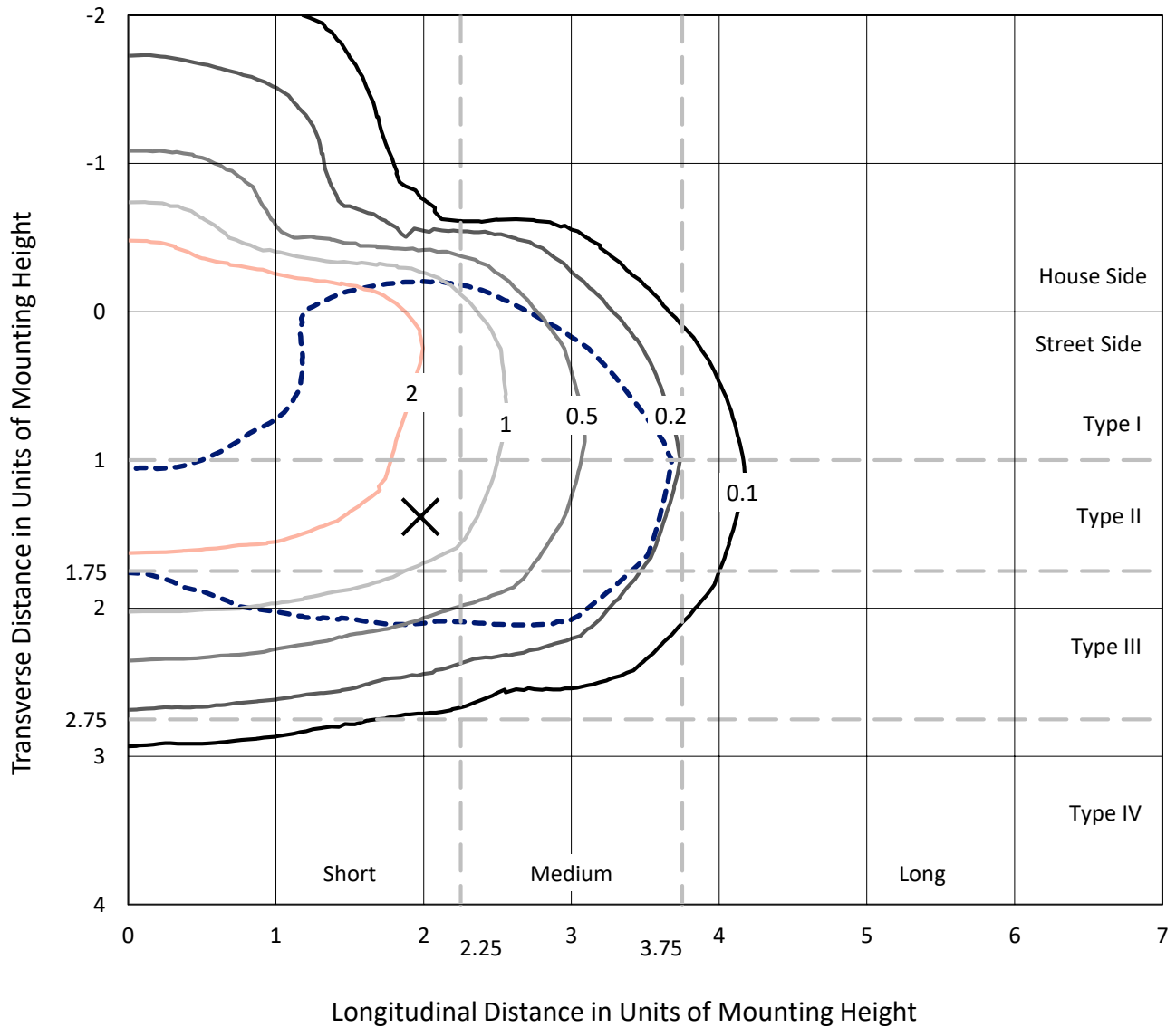
Input Watts (W): 124
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

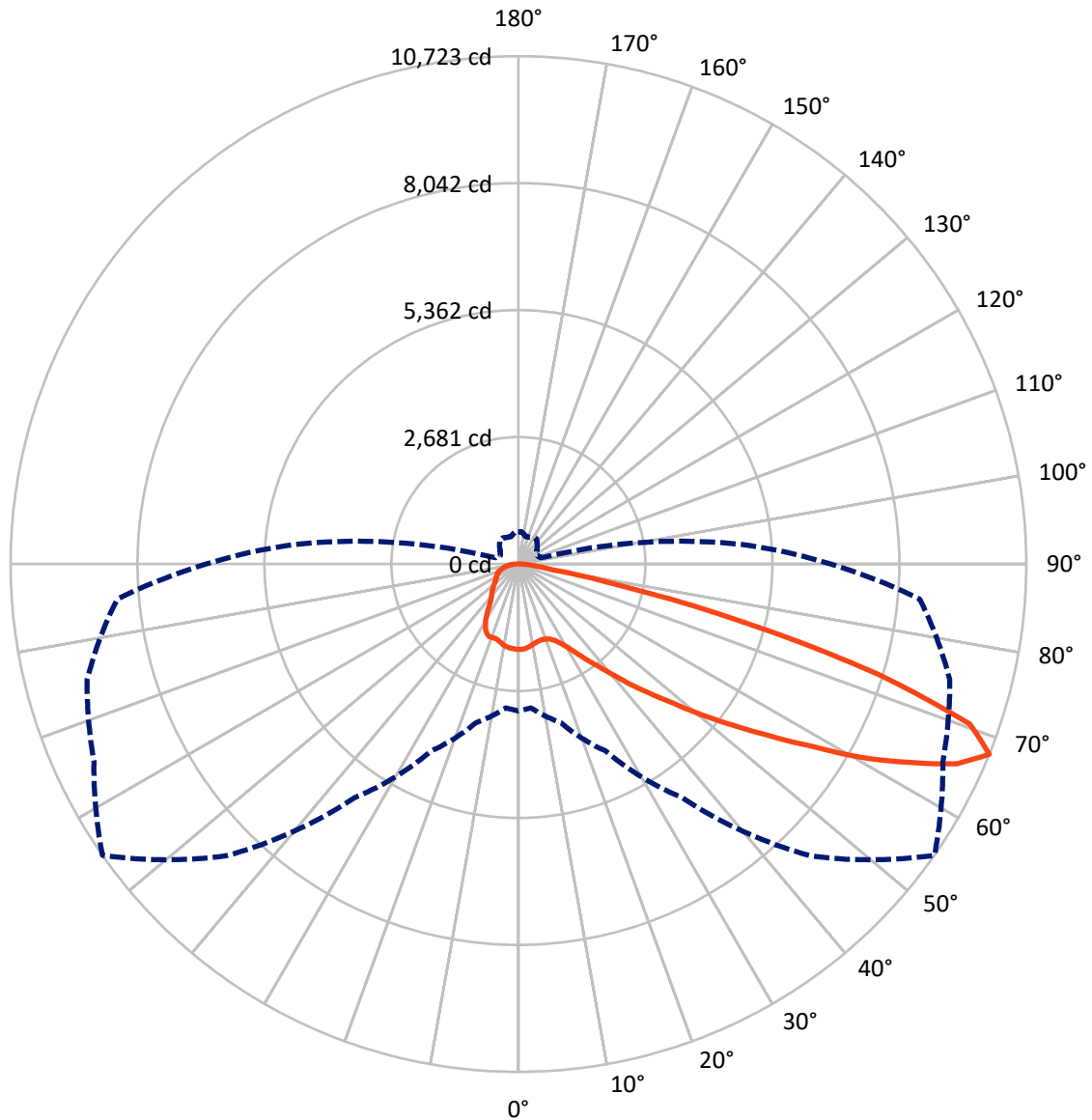
× Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3161.2	0.0	3161.2
	% Fixture	21.6	0.0	21.6
Street Side	Lumens	11472.4	0.0	11472.4
	% Fixture	78.4	0.0	78.4
Total	Lumens	14633.5	0.0	14633.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	168.4	1.2
10°-20°	477.0	3.3
20°-30°	799.1	5.5
30°-40°	1314.0	9.0
40°-50°	2211.9	15.1
50°-60°	3481.3	23.8
60°-70°	4154.6	28.4
70°-80°	1784.1	12.2
80°-90°	243.2	1.7
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°	14633.5	100.0
0°-180°	14633.5	100.0



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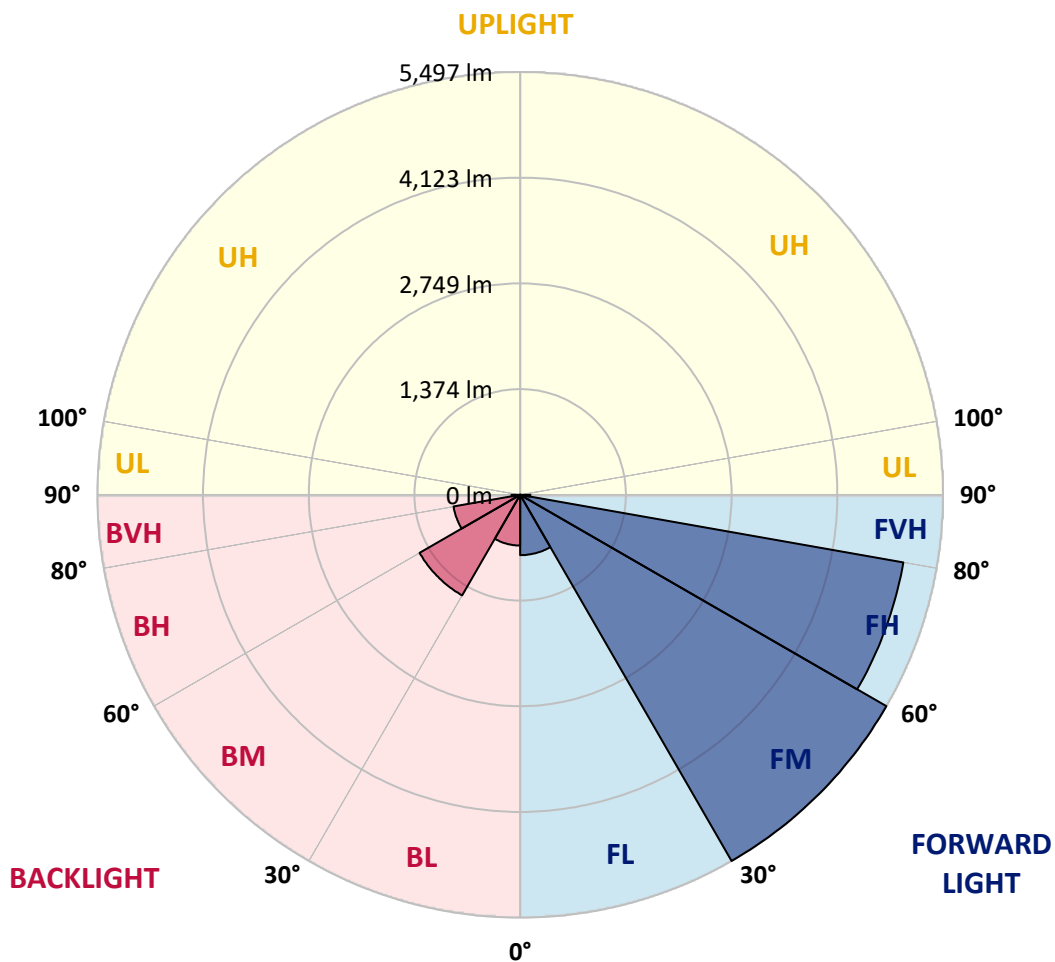
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	784.4	5.4			
FM	(30°-60°)	5497.4	37.6			
FH	(60°-80°)	5058.9	34.6			G3/7500
FVH	(80°-90°)	131.7	0.9			G2/225
BL	(0°-30°)	660.1	4.5	B2/1000		
BM	(30°-60°)	1509.7	10.3	B2/2500		
BH	(60°-80°)	879.7	6.0	B2/1000		G2/1000
BVH	(80°-90°)	111.6	0.8			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1804.5	1804.5	1804.5	1804.5	1804.5	1804.5	1804.5	1804.5	1804.5	1804.5	1804.5
2.5°	1788.9	1789.6	1791.0	1796.7	1801.6	1800.2	1800.9	1798.1	1797.4	1793.2	1797.4
5°	1766.3	1768.4	1769.1	1778.3	1784.0	1785.4	1783.3	1779.7	1775.5	1771.3	1773.4
7.5°	1714.7	1720.4	1721.1	1733.8	1743.0	1755.0	1755.7	1756.4	1754.3	1751.5	1755.7
10°	1682.2	1683.6	1682.9	1692.1	1699.2	1712.6	1720.4	1733.8	1739.5	1740.9	1743.7
12.5°	1680.1	1678.7	1676.5	1676.5	1674.4	1680.1	1694.2	1713.3	1726.7	1731.0	1734.5
15°	1702.7	1702.0	1694.9	1684.3	1670.9	1666.6	1678.7	1699.9	1717.5	1726.7	1730.3
17.5°	1753.6	1749.3	1738.0	1714.0	1685.0	1673.7	1675.1	1692.8	1713.3	1725.3	1728.8
20°	1846.9	1846.9	1822.9	1777.6	1726.0	1699.2	1686.4	1697.0	1716.8	1733.1	1738.0
22.5°	2008.0	2009.5	1969.2	1894.9	1808.0	1750.8	1719.0	1716.8	1740.2	1758.5	1764.2
25°	2236.3	2230.7	2174.1	2068.1	1935.9	1841.2	1786.1	1773.4	1793.2	1813.7	1820.7
27.5°	2502.1	2481.6	2414.5	2286.5	2115.5	1976.9	1892.1	1871.6	1890.7	1914.0	1921.1
30°	2765.0	2743.8	2664.0	2524.0	2333.9	2158.6	2037.0	2003.8	2030.7	2063.9	2068.1
32.5°	3028.0	3028.0	2938.9	2775.6	2568.5	2375.6	2230.0	2190.4	2234.9	2275.2	2284.4
35°	3342.5	3343.9	3257.7	3061.2	2838.5	2634.3	2473.8	2444.8	2512.0	2540.3	2562.2
37.5°	3729.1	3736.9	3625.9	3388.4	3144.6	2929.7	2738.9	2699.3	2766.4	2843.5	2914.2
40°	4146.8	4156.7	4034.5	3741.8	3498.0	3273.2	3066.8	2995.4	3107.1	3254.1	3345.3
42.5°	4545.5	4596.4	4478.3	4177.2	3915.0	3682.5	3473.2	3369.3	3509.3	3731.2	3810.4
45°	5121.5	5158.3	4952.6	4679.8	4433.1	4173.0	3895.9	3786.4	3982.1	4262.0	4278.3
47.5°	5505.3	5477.8	5373.1	5203.5	5047.3	4804.2	4387.1	4267.0	4527.1	4856.5	4765.3
50°	5709.6	5718.1	5703.9	5713.8	5719.5	5566.8	4989.3	4824.7	5134.9	5532.9	5323.0
52.5°	5900.4	5843.9	5890.5	6122.4	6402.3	6345.7	5644.6	5472.8	5786.6	6283.5	5912.4
55°	5896.2	5809.9	5961.9	6371.2	6978.3	7043.3	6380.3	6182.4	6475.8	7088.6	6537.3
57.5°	5687.7	5691.9	5925.9	6461.6	7379.8	7699.2	7234.2	6937.3	7206.6	7904.2	7107.6
60°	5400.7	5439.6	5776.7	6446.8	7701.4	8237.1	8281.7	7750.8	7922.6	8645.7	7579.8
62.5°	4937.8	4978.7	5443.8	6292.7	7652.6	8755.2	9228.8	8673.9	8671.1	9095.2	7718.3
65°	4207.6	4195.6	4684.0	5716.7	7243.4	9138.3	10169.5	9471.9	9235.1	9102.3	7439.8
67.5°	3102.9	3049.2	3468.3	4353.9	6020.6	8709.3	10723.0	9887.5	9427.4	8503.6	6588.9
70°	1610.1	1556.4	1895.7	2542.4	3959.5	6797.4	10110.2	9672.6	9002.6	7128.1	5161.8
72.5°	688.4	679.2	817.1	1115.3	1915.4	3920.7	7927.5	8372.1	7724.7	5310.9	3548.9
75°	463.0	460.1	511.7	607.9	861.6	1591.0	4961.1	5942.8	5651.6	3293.0	1996.0
77.5°	363.3	359.8	390.2	436.8	558.4	627.6	2201.7	3190.5	2953.0	1433.4	873.6
80°	284.1	281.3	300.4	325.8	401.5	395.8	724.5	1269.4	982.5	549.2	424.8
82.5°	224.1	224.1	239.6	240.3	284.8	270.0	378.1	559.1	490.5	320.2	260.1
85°	205.0	205.0	221.2	179.5	185.9	170.3	234.7	331.5	311.0	131.5	113.1
87.5°	103.2	100.4	185.9	159.0	101.1	90.5	114.5	160.4	172.5	72.8	56.5
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1804.5	1804.5	1804.5	1804.5	1804.5	1804.5	1804.5	1804.5	1804.5	1804.5
2.5°	1796.0	1795.3	1796.7	1797.4	1803.1	1810.8	1814.4	1819.3	1822.1	1820.7
5°	1774.8	1776.2	1781.9	1786.1	1796.0	1808.7	1815.8	1821.4	1826.4	1824.3
7.5°	1757.1	1760.7	1769.1	1772.7	1778.3	1781.9	1781.2	1783.3	1787.5	1782.6
10°	1747.2	1751.5	1757.8	1752.9	1739.5	1720.4	1702.7	1693.5	1696.3	1692.8
12.5°	1737.3	1743.0	1738.0	1714.7	1677.3	1652.5	1639.1	1640.5	1646.9	1648.3
15°	1731.7	1733.8	1712.6	1668.8	1630.6	1627.1	1634.1	1632.7	1633.4	1633.4
17.5°	1731.7	1726.0	1686.4	1642.6	1626.4	1620.0	1598.1	1570.5	1558.5	1554.3
20°	1740.9	1726.0	1678.0	1649.0	1613.6	1559.2	1501.3	1450.4	1427.7	1421.4
22.5°	1768.4	1743.0	1702.0	1651.8	1551.4	1460.3	1368.4	1307.6	1266.6	1259.5
25°	1824.3	1796.0	1749.3	1614.3	1452.5	1322.4	1217.8	1150.0	1109.0	1103.3
27.5°	1921.8	1903.4	1774.8	1531.6	1321.0	1181.8	1084.9	1032.6	1002.3	1000.1
30°	2068.8	2059.6	1762.1	1409.4	1159.2	1045.4	998.7	968.3	945.7	945.0
32.5°	2303.5	2229.3	1720.4	1260.2	1011.4	948.5	929.5	911.1	893.4	893.4
35°	2605.3	2366.4	1641.2	1100.5	921.7	894.8	870.8	841.8	818.5	817.1
37.5°	2960.1	2451.2	1499.1	971.9	879.3	858.8	823.4	780.3	739.3	732.3
40°	3318.5	2476.7	1299.1	892.7	852.4	822.7	779.6	728.7	689.1	687.0
42.5°	3647.1	2427.9	1087.1	838.3	825.6	786.0	740.7	695.5	664.4	663.7
45°	3922.8	2301.4	909.0	786.7	797.3	752.7	712.5	675.7	651.7	646.7
47.5°	4182.2	2122.5	783.8	732.3	769.0	734.4	700.4	665.8	642.5	639.0
50°	4483.3	1929.6	696.2	679.2	744.3	728.0	710.3	674.3	635.4	631.2
52.5°	4848.0	1762.8	627.6	632.6	725.2	736.5	735.8	698.3	630.5	624.8
55°	5255.1	1577.6	576.0	594.4	717.4	752.0	742.1	720.9	634.7	626.2
57.5°	5655.9	1361.3	540.0	565.4	706.1	750.6	711.8	681.4	644.6	632.6
60°	5956.3	1070.8	512.4	540.0	681.4	727.3	678.5	638.2	642.5	633.3
62.5°	5976.0	827.7	479.2	518.1	643.9	704.0	656.6	619.2	651.7	643.2
65°	5624.8	625.5	447.4	491.9	603.6	689.1	635.4	608.6	670.8	661.6
67.5°	4735.6	503.2	420.5	465.1	563.3	658.0	616.3	598.7	687.7	671.5
70°	3418.8	429.0	394.4	432.6	527.3	622.7	599.4	581.0	641.8	616.3
72.5°	2104.9	371.8	364.7	389.5	499.7	585.9	573.9	547.8	578.2	557.7
75°	1051.0	322.3	331.5	347.0	460.8	544.2	531.5	505.4	509.6	505.4
77.5°	503.2	275.7	292.6	304.6	410.7	496.9	483.5	456.6	451.6	452.4
80°	318.8	230.4	246.7	255.2	366.8	441.8	428.3	401.5	458.0	424.8
82.5°	199.3	187.3	191.5	207.1	319.5	384.5	366.8	342.8	412.8	326.5
85°	110.3	130.8	136.4	149.8	246.0	321.6	303.9	273.5	245.3	241.0
87.5°	65.7	77.7	79.9	89.8	165.4	232.5	205.7	195.1	161.9	161.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)