

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: P300431

Luminaire Tested: **GLNA-AF-03-LED-E1-T4FT-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300431
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24295)
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-T4FT-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV Forward Throw OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12002.5 lumens
Efficiency: N/A
Efficacy: 125.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B2 - U0 - G2

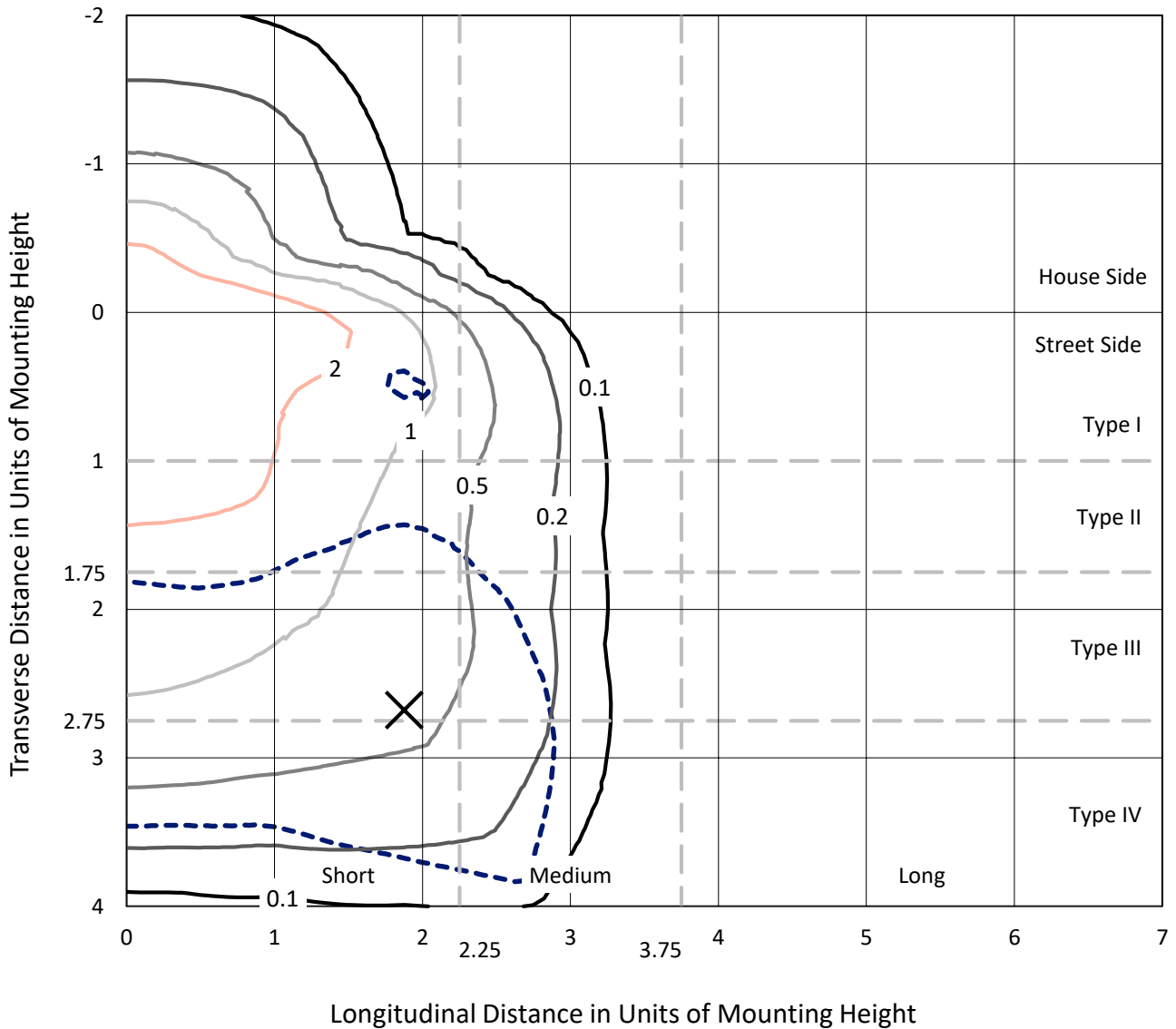
Input Watts (W): 96
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

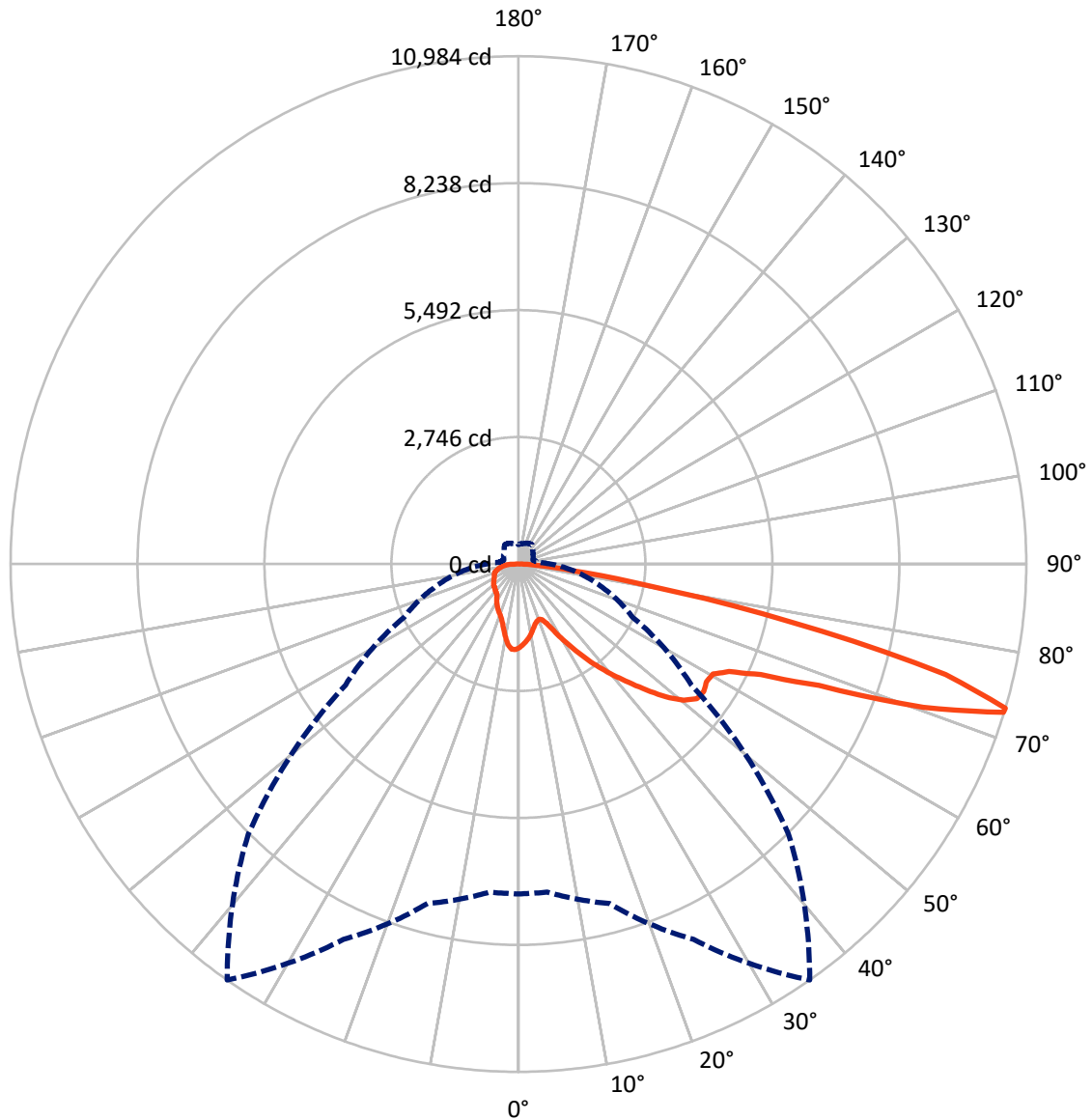
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4.5 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 73-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2289.2	0.0	2289.2
	% Fixture	19.1	0.0	19.1
Street Side	Lumens	9713.3	0.0	9713.3
	% Fixture	80.9	0.0	80.9
Total	Lumens	12002.5	0.0	12002.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	164.0	1.4
10°-20°	409.3	3.4
20°-30°	661.7	5.5
30°-40°	1109.6	9.2
40°-50°	1710.4	14.3
50°-60°	2294.7	19.1
60°-70°	3057.0	25.5
70°-80°	2331.5	19.4
80°-90°	264.3	2.2
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°	12002.5	100.0
0°-180°	12002.5	100.0



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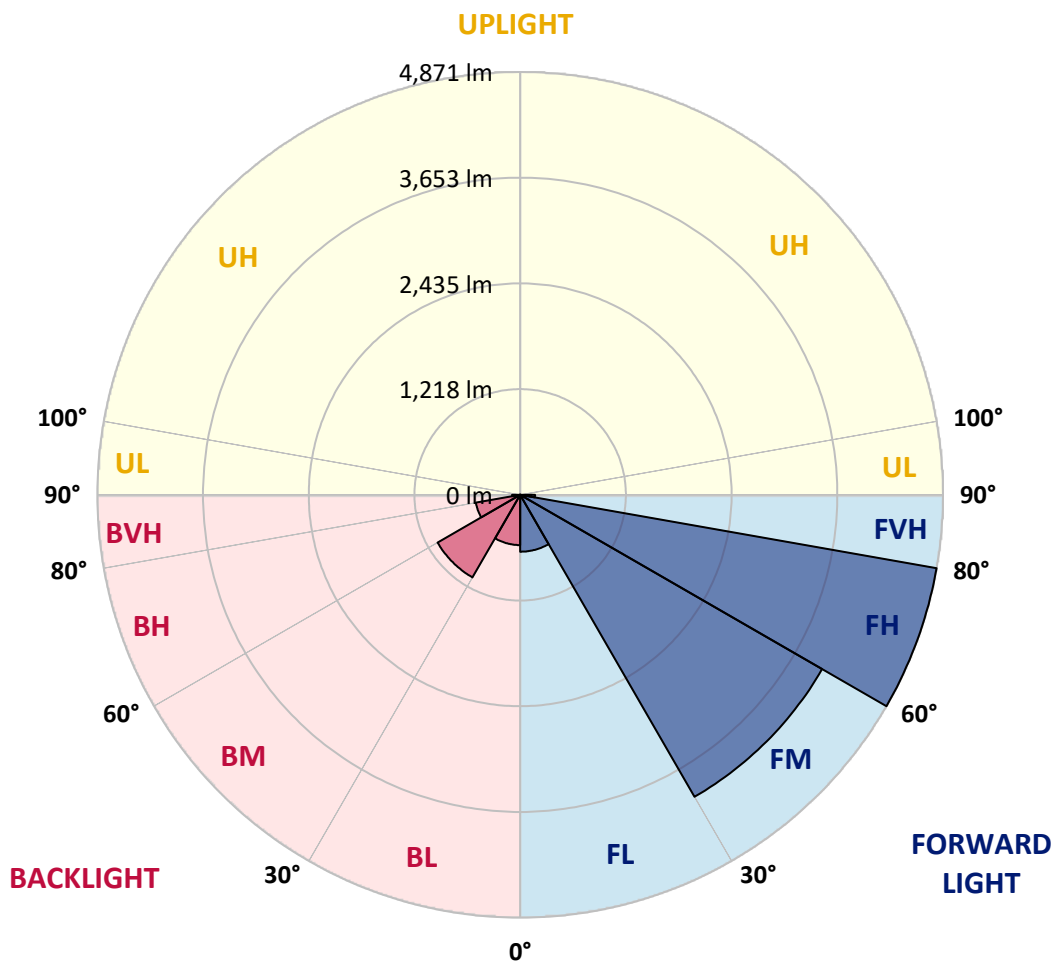
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	655.7	5.5			
FM	(30°-60°)	4016.1	33.5			
FH	(60°-80°)	4870.6	40.6			G2/5000
FVH	(80°-90°)	170.8	1.4			G2/225
BL	(0°-30°)	579.3	4.8	B2/1000		
BM	(30°-60°)	1098.6	9.2	B2/2500		
BH	(60°-80°)	517.9	4.3	B2/1000		G2/1000
BVH	(80°-90°)	93.4	0.8			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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1811.5	1811.5	1811.5	1811.5	1811.5	1811.5	1811.5	1811.5	1811.5	1811.5	1811.5
2.5°	1740.1	1743.5	1739.5	1744.7	1753.3	1762.6	1768.9	1778.1	1788.5	1802.9	1806.4
5°	1658.2	1663.4	1663.4	1672.6	1689.4	1704.3	1718.2	1733.2	1755.1	1779.8	1789.6
7.5°	1568.3	1571.2	1576.4	1590.2	1614.4	1635.8	1655.3	1679.6	1709.5	1742.4	1759.7
10°	1460.0	1464.0	1472.1	1491.7	1524.5	1553.9	1582.1	1615.6	1653.6	1694.5	1716.4
12.5°	1383.3	1382.1	1385.6	1400.0	1428.8	1464.6	1505.5	1548.1	1594.8	1642.7	1669.2
15°	1357.4	1351.0	1337.8	1334.3	1349.9	1385.6	1432.9	1485.3	1541.2	1598.9	1631.7
17.5°	1373.5	1362.5	1326.2	1299.7	1297.4	1324.5	1374.7	1433.4	1498.0	1568.3	1609.2
20°	1474.9	1449.0	1359.7	1298.0	1276.7	1289.9	1333.7	1396.0	1472.1	1565.4	1617.9
22.5°	1717.6	1679.6	1489.9	1375.2	1303.2	1287.0	1319.9	1386.2	1474.9	1601.2	1668.0
25°	2070.9	2016.7	1713.6	1567.7	1419.0	1333.2	1340.6	1408.7	1515.9	1684.2	1764.9
27.5°	2349.9	2314.7	2005.8	1839.2	1630.0	1457.7	1408.1	1465.1	1599.4	1820.2	1902.6
30°	2515.9	2494.5	2318.2	2147.0	1899.2	1655.9	1537.2	1571.2	1730.3	2008.7	2076.7
32.5°	2708.4	2695.7	2609.2	2451.9	2189.6	1916.4	1741.8	1729.7	1905.5	2235.2	2266.3
35°	2907.8	2903.8	2853.1	2740.1	2501.5	2260.0	2013.3	1931.4	2096.3	2470.3	2450.7
37.5°	3093.4	3086.5	3057.1	2991.4	2827.7	2628.8	2289.9	2138.3	2302.0	2695.1	2608.1
40°	3435.2	3381.0	3280.1	3230.6	3157.4	2939.5	2509.5	2331.4	2515.3	2909.5	2744.1
42.5°	3851.9	3763.7	3575.8	3507.8	3497.4	3184.5	2659.4	2518.8	2730.3	3122.2	2877.8
45°	4179.9	4096.9	3934.9	3849.0	3887.1	3406.4	2809.8	2718.8	2951.6	3345.3	3015.6
47.5°	4529.7	4399.5	4185.1	4211.0	4294.0	3616.2	2963.1	2933.7	3194.3	3594.8	3186.8
50°	4542.4	4442.7	4348.7	4503.8	4632.9	3809.3	3155.1	3159.1	3491.1	3909.0	3414.4
52.5°	4279.0	4257.7	4407.0	4650.8	4836.9	3962.0	3373.5	3392.0	3870.9	4269.8	3664.6
55°	4186.8	4162.6	4334.9	4599.5	4864.6	4088.2	3610.4	3643.8	4330.3	4650.2	3908.4
57.5°	4411.6	4358.0	4369.5	4575.3	4797.2	4226.6	3868.6	3936.1	4829.4	4982.8	4065.2
60°	5039.8	4925.1	4707.2	4702.1	4833.5	4434.0	4167.2	4249.6	5348.2	5141.8	4004.1
62.5°	5921.1	5806.4	5398.3	5132.6	5113.0	4776.4	4533.8	4555.7	5647.9	4926.3	3631.2
65°	6875.0	6772.4	6316.5	5941.3	5760.3	5343.6	4959.7	4692.3	5549.9	4333.2	2978.7
67.5°	8032.9	7922.8	7530.9	7184.5	7010.4	6258.8	5258.8	4561.4	4928.0	3356.8	2141.2
70°	8842.7	8730.3	8575.9	8856.6	9282.5	7579.3	5297.5	4029.4	3680.7	2231.1	1288.8
72.5°	7786.2	7733.8	8015.6	9197.8	10971.9	8380.5	4788.5	2933.7	2137.8	1184.4	745.8
73°	7133.8	7122.3	7603.0	8958.6	10984.0	8257.1	4565.5	2726.8	1833.4	1047.8	681.9
75°	3221.4	3314.2	4367.8	6842.7	9543.0	6804.1	3213.3	1564.3	1035.7	723.9	514.7
77.5°	774.1	806.3	1366.6	3249.6	6026.6	4054.8	1455.9	773.5	662.3	511.2	375.8
80°	329.7	340.6	526.2	1200.6	2837.5	1632.9	670.9	518.2	458.2	356.8	263.4
82.5°	183.3	194.8	298.6	544.7	1145.3	556.8	409.2	360.8	301.4	215.0	171.2
85°	103.7	110.1	174.6	304.3	485.3	223.6	245.0	239.8	170.0	110.7	84.2
87.5°	49.0	53.0	84.2	141.2	190.2	87.6	124.5	137.2	106.6	67.4	43.8
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°	1811.5	1811.5	1811.5	1811.5	1811.5	1811.5	1811.5	1811.5	1811.5	1811.5
2.5°	1810.4	1820.8	1832.9	1839.2	1845.0	1851.9	1858.8	1858.8	1860.0	1860.5
5°	1797.7	1819.0	1838.1	1846.1	1847.9	1847.9	1846.1	1836.9	1828.8	1832.3
7.5°	1771.2	1802.3	1818.5	1815.6	1793.7	1768.3	1747.0	1721.1	1707.8	1705.5
10°	1733.2	1768.9	1771.8	1743.0	1688.8	1634.6	1589.6	1545.8	1525.1	1519.9
12.5°	1691.1	1723.9	1705.5	1646.1	1559.1	1480.1	1423.1	1378.7	1359.1	1353.9
15°	1657.1	1679.6	1632.9	1539.5	1430.0	1346.4	1299.1	1266.3	1252.5	1248.4
17.5°	1639.2	1643.8	1558.5	1432.3	1315.9	1246.1	1216.7	1201.2	1196.0	1193.1
20°	1647.9	1615.6	1487.6	1332.6	1222.5	1173.5	1166.6	1162.5	1161.4	1159.7
22.5°	1691.1	1606.9	1422.5	1238.1	1140.6	1119.3	1125.1	1124.5	1123.4	1122.2
25°	1768.3	1614.4	1359.1	1148.1	1072.1	1067.4	1077.8	1077.8	1073.2	1073.2
27.5°	1870.3	1630.0	1288.2	1062.8	1009.8	1010.4	1018.5	1016.1	1011.0	1007.5
30°	1994.8	1639.8	1205.2	986.2	951.6	949.3	951.6	941.8	926.2	925.1
32.5°	2122.2	1627.7	1108.9	918.2	889.9	884.7	883.0	869.2	851.3	846.1
35°	2237.5	1583.3	1011.0	864.0	831.1	819.6	827.7	823.1	806.9	802.9
37.5°	2321.6	1500.9	922.8	816.1	789.1	786.2	791.4	793.1	774.1	770.0
40°	2378.1	1389.1	847.3	775.8	781.0	770.0	752.7	740.6	734.9	733.1
42.5°	2423.7	1272.6	783.9	756.8	782.7	751.0	713.6	694.0	704.3	708.9
45°	2476.1	1159.1	730.8	733.1	774.1	729.1	686.5	667.4	671.5	672.6
47.5°	2548.2	1020.8	673.8	695.1	745.3	714.1	669.7	642.7	623.6	615.0
50°	2647.9	857.1	614.4	652.5	717.0	703.2	643.8	615.0	579.8	571.8
52.5°	2717.0	704.3	565.4	616.7	691.6	681.3	623.1	585.6	548.7	541.8
55°	2679.6	585.0	522.8	577.0	658.2	654.2	605.8	555.6	526.8	521.0
57.5°	2492.2	509.5	489.9	539.5	617.3	631.1	582.7	530.3	509.5	505.5
60°	2134.9	462.3	469.2	514.1	583.9	608.1	559.7	516.4	502.6	499.7
62.5°	1656.5	430.6	453.6	495.7	557.9	591.9	547.0	514.7	509.5	506.1
65°	1186.8	405.2	436.9	477.2	534.3	577.0	542.4	512.4	513.5	510.7
67.5°	806.3	382.7	416.7	456.5	511.2	563.7	536.0	504.3	518.7	515.3
70°	564.3	360.8	393.1	430.0	482.4	545.3	524.5	492.2	491.1	477.2
72.5°	440.3	332.0	360.8	393.1	445.5	519.3	501.4	465.1	446.1	431.7
73°	420.2	325.1	352.7	385.0	437.5	513.0	495.1	457.6	436.3	423.1
75°	347.6	295.1	320.5	349.3	402.9	483.0	464.0	423.6	396.5	388.5
77.5°	273.2	252.5	276.7	302.6	355.0	439.2	417.9	379.3	364.3	357.4
80°	202.3	209.2	230.5	253.6	307.8	392.5	373.5	334.9	401.7	385.0
82.5°	142.4	158.5	178.1	198.8	258.2	347.0	323.9	284.2	294.0	244.4
85°	84.2	103.7	122.2	140.1	186.2	287.6	267.4	226.5	185.6	176.9
87.5°	49.0	57.6	62.8	81.3	128.0	216.7	188.5	167.7	96.3	65.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)