

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: P299197

Luminaire Tested: **GLNA-AF-08-LED-E1-T3-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299197
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-08-LED-E1-T3-7027-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(8) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 33376.5 lumens
Efficiency: N/A
Efficacy: 99.9 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 334
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

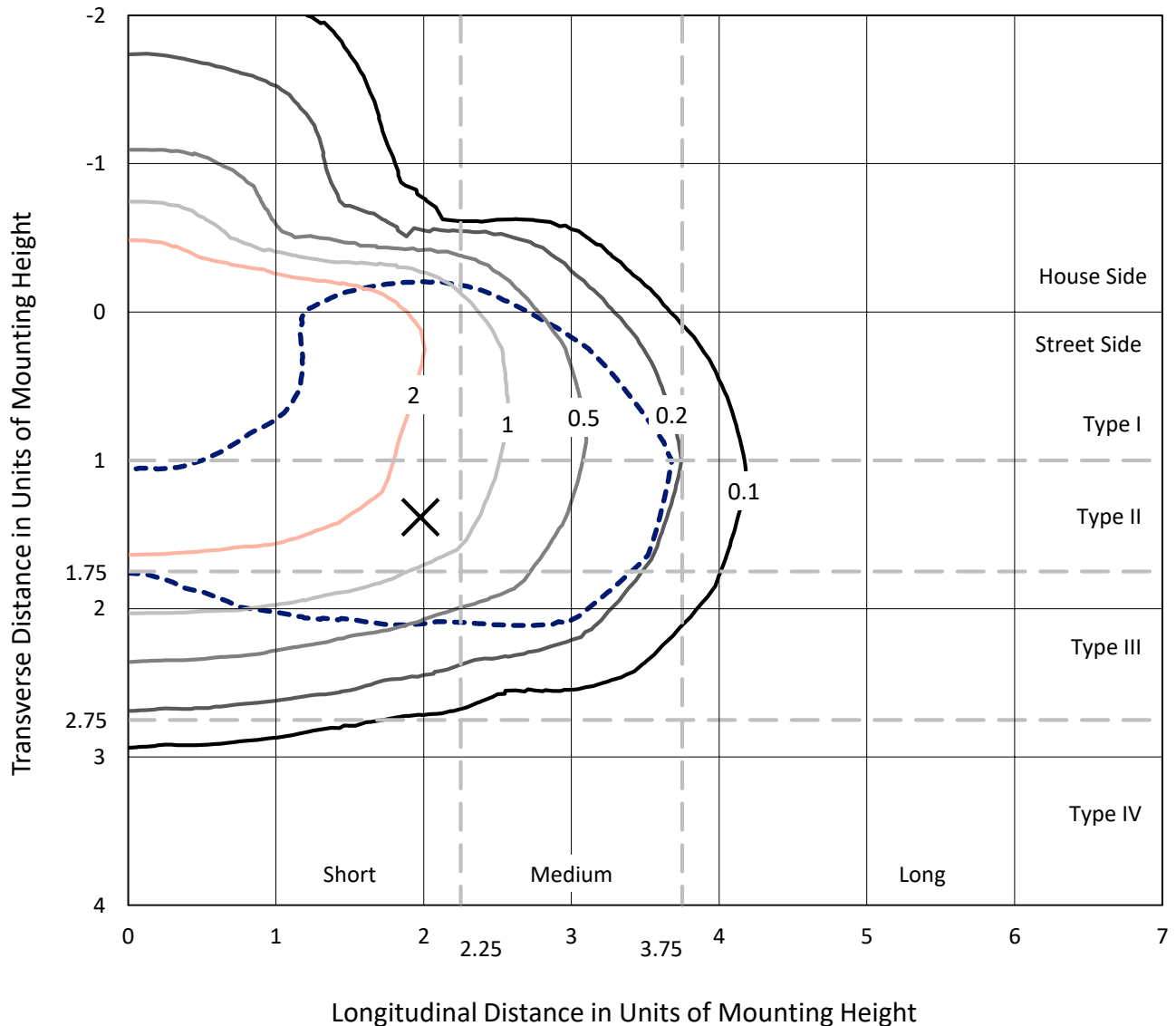


REPORT NUMBER: P299197

CATALOG NUMBER: GLNA-AF-08-LED-E1-T3-7027-800

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

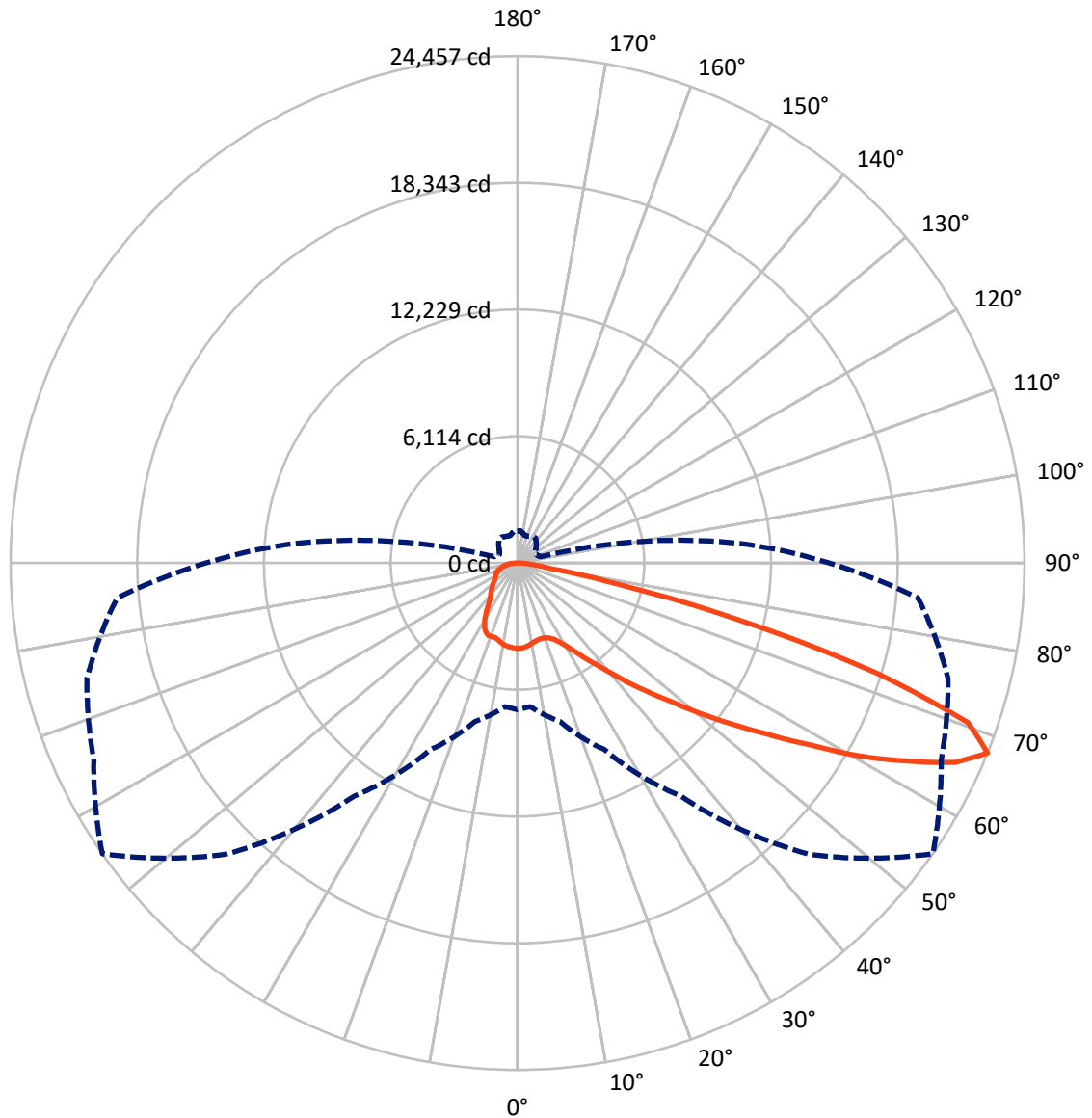


Based on 30 foot mounting height. Maximum calculated value = 4.7 fc
 Type III - Short - Full Cutoff

REPORT NUMBER: P299197

CATALOG NUMBER: GLNA-AF-08-LED-E1-T3-7027-800

Luminous Intensity Polar Plot



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

REPORT NUMBER: P299197

CATALOG NUMBER: GLNA-AF-08-LED-E1-T3-7027-800

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7210.0	0.0	7210.0
	% Fixture	21.6	0.0	21.6
Street Side	Lumens	26166.4	0.0	26166.4
	% Fixture	78.4	0.0	78.4
Total	Lumens	33376.5	0.0	33376.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	384.2	1.2
10°-20°	1088.0	3.3
20°-30°	1822.5	5.5
30°-40°	2997.0	9.0
40°-50°	5044.9	15.1
50°-60°	7940.2	23.8
60°-70°	9475.8	28.4
70°-80°	4069.1	12.2
80°-90°	554.8	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°	33376.5	100.0
0°-180°	33376.5	100.0



REPORT NUMBER: P299197

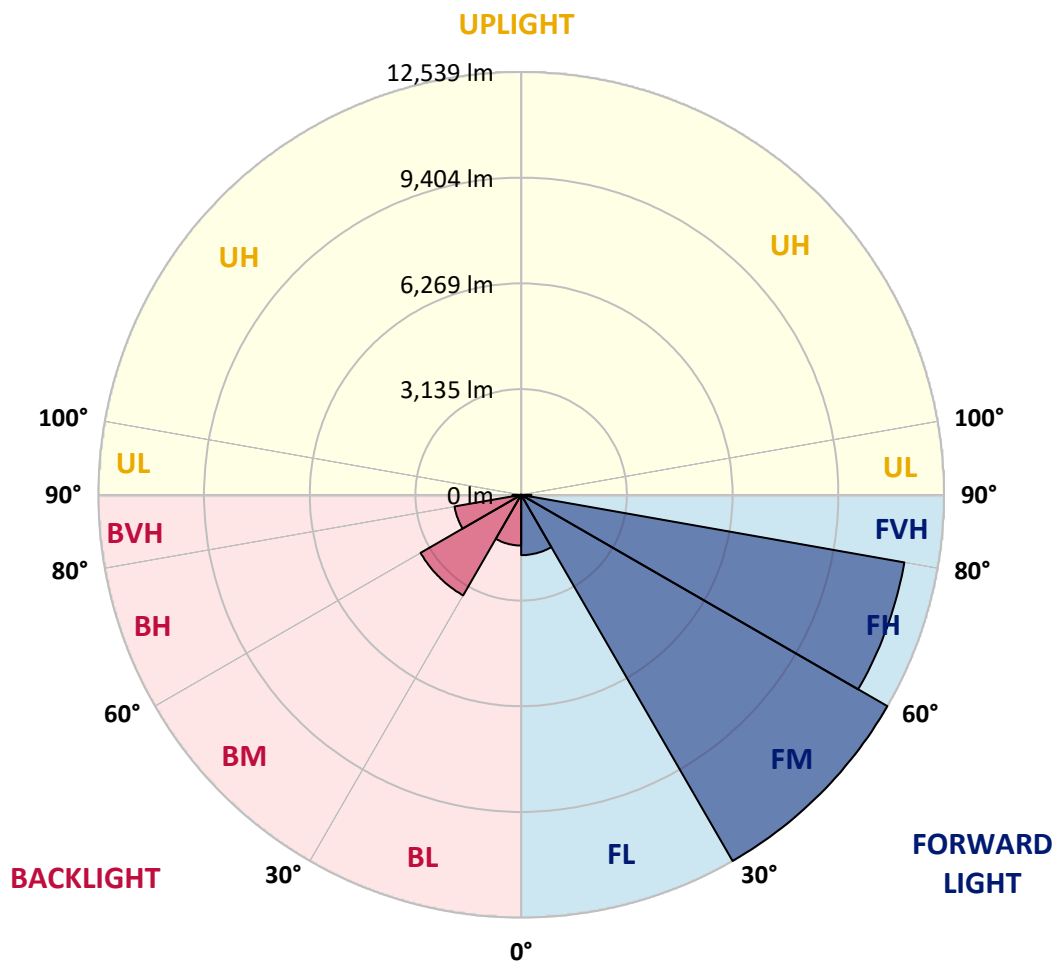
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1789.1	5.4			
FM	(30°-60°)	12538.7	37.6			
FH	(60°-80°)	11538.4	34.6			G4/12000
FVH	(80°-90°)	300.3	0.9			G3/500
BL	(0°-30°)	1505.6	4.5	B3/2500		
BM	(30°-60°)	3443.4	10.3	B3/5000		
BH	(60°-80°)	2006.5	6.0	B3/2500		G3/2500
BVH	(80°-90°)	254.5	0.8			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type III Short





REPORT NUMBER: P299197

CATALOG NUMBER: GLNA-AF-08-LED-E1-T3-7027-800

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4115.7	4115.7	4115.7	4115.7	4115.7	4115.7	4115.7	4115.7	4115.7	4115.7	4115.7
2.5°	4080.2	4081.8	4085.1	4097.9	4109.2	4106.0	4107.6	4101.2	4099.6	4089.9	4099.6
5°	4028.6	4033.5	4035.1	4056.0	4068.9	4072.2	4067.3	4059.3	4049.6	4039.9	4044.8
7.5°	3910.9	3923.8	3925.5	3954.5	3975.4	4002.8	4004.4	4006.1	4001.2	3994.8	4004.4
10°	3836.8	3840.0	3838.4	3859.4	3875.5	3906.1	3923.8	3954.5	3967.4	3970.6	3977.0
12.5°	3832.0	3828.7	3823.9	3823.9	3819.1	3832.0	3864.2	3907.7	3938.4	3948.0	3956.1
15°	3883.5	3881.9	3865.8	3841.6	3811.0	3801.3	3828.7	3877.1	3917.4	3938.4	3946.4
17.5°	3999.6	3989.9	3964.1	3909.3	3843.2	3817.4	3820.7	3861.0	3907.7	3935.1	3943.2
20°	4212.4	4212.4	4157.6	4054.4	3936.7	3875.5	3846.5	3870.6	3915.8	3952.9	3964.1
22.5°	4580.0	4583.2	4491.3	4322.0	4123.7	3993.2	3920.6	3915.8	3969.0	4010.9	4023.8
25°	5100.7	5087.8	4958.8	4717.0	4415.5	4199.5	4073.8	4044.8	4089.9	4136.6	4152.8
27.5°	5706.8	5660.1	5506.9	5215.1	4825.0	4509.0	4315.6	4268.8	4312.4	4365.6	4381.7
30°	6306.5	6258.2	6076.0	5756.8	5323.1	4923.3	4646.1	4570.3	4631.6	4707.3	4717.0
32.5°	6906.2	6906.2	6703.1	6330.7	5858.4	5418.3	5086.2	4995.9	5097.4	5189.3	5210.3
35°	7623.6	7626.8	7430.2	6982.0	6474.2	6008.3	5642.3	5576.2	5729.4	5793.9	5843.9
37.5°	8505.4	8523.2	8270.1	7728.4	7172.2	6682.1	6246.9	6156.6	6309.7	6485.5	6646.7
40°	9458.2	9480.7	9201.8	8534.4	7978.3	7465.6	6994.9	6832.1	7086.8	7422.1	7630.1
42.5°	10367.4	10483.5	10214.2	9527.5	8929.4	8399.0	7921.8	7684.9	8004.1	8510.3	8690.8
45°	11681.3	11765.1	11296.0	10673.7	10111.1	9517.8	8885.9	8636.0	9082.6	9720.9	9758.0
47.5°	12556.6	12493.7	12255.2	11868.3	11512.0	10957.4	10006.3	9732.2	10325.5	11076.7	10868.8
50°	13022.5	13041.9	13009.6	13032.2	13045.1	12696.9	11379.8	11004.2	11711.9	12619.5	12140.7
52.5°	13457.8	13328.8	13435.2	13964.0	14602.4	14473.4	12874.2	12482.5	13198.2	14331.5	13485.2
55°	13448.1	13251.4	13598.0	14531.4	15916.2	16064.5	14552.4	14101.0	14770.0	16167.7	14910.3
57.5°	12972.5	12982.2	13515.8	14737.8	16831.9	17560.6	16499.8	15822.7	16436.9	18028.1	16211.2
60°	12318.0	12406.7	13175.7	14703.9	17565.4	18787.4	18888.9	17678.3	18070.0	19719.2	17288.1
62.5°	11262.1	11355.6	12416.4	14352.5	17454.2	19969.0	21049.1	19783.7	19777.2	20744.5	17604.1
65°	9596.8	9569.4	10683.4	13038.6	16520.8	20842.8	23194.8	21603.7	21063.7	20760.6	16968.9
67.5°	7077.1	6954.6	7910.6	9930.5	13731.8	19864.3	24457.1	22551.6	21502.1	19395.1	15028.0
70°	3672.4	3549.8	4323.6	5798.7	9031.0	15503.5	23059.4	22061.5	20533.3	16258.0	11773.1
72.5°	1570.2	1549.2	1863.6	2543.9	4368.8	8942.3	18081.3	19095.3	17618.6	12113.3	8094.3
75°	1055.9	1049.5	1167.2	1386.4	1965.1	3628.8	11315.3	13554.5	12890.3	7510.8	4552.6
77.5°	828.6	820.6	889.9	996.3	1273.6	1431.5	5021.7	7277.0	6735.3	3269.3	1992.6
80°	648.1	641.6	685.1	743.2	915.7	902.8	1652.4	2895.3	2240.8	1252.6	968.9
82.5°	511.0	511.0	546.5	548.1	649.7	615.8	862.5	1275.2	1118.8	730.3	593.3
85°	467.5	467.5	504.6	409.5	424.0	388.5	535.2	756.1	709.3	299.8	257.9
87.5°	235.4	228.9	424.0	362.7	230.5	206.3	261.2	365.9	393.4	166.0	129.0
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: P299197

CATALOG NUMBER: GLNA-AF-08-LED-E1-T3-7027-800

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4115.7	4115.7	4115.7	4115.7	4115.7	4115.7	4115.7	4115.7	4115.7	4115.7
2.5°	4096.3	4094.7	4097.9	4099.6	4112.5	4130.2	4138.3	4149.5	4156.0	4152.8
5°	4048.0	4051.2	4064.1	4073.8	4096.3	4125.4	4141.5	4154.4	4165.7	4160.8
7.5°	4007.7	4015.7	4035.1	4043.1	4056.0	4064.1	4062.5	4067.3	4077.0	4065.7
10°	3985.1	3994.8	4009.3	3998.0	3967.4	3923.8	3883.5	3862.6	3869.0	3861.0
12.5°	3962.5	3975.4	3964.1	3910.9	3825.5	3769.1	3738.5	3741.7	3756.2	3759.4
15°	3949.6	3954.5	3906.1	3806.2	3719.1	3711.0	3727.2	3723.9	3725.6	3725.6
17.5°	3949.6	3936.7	3846.5	3746.5	3709.4	3694.9	3645.0	3582.1	3554.7	3545.0
20°	3970.6	3936.7	3827.1	3761.0	3680.4	3556.3	3424.1	3308.0	3256.4	3241.9
22.5°	4033.5	3975.4	3881.9	3767.5	3538.6	3330.6	3121.0	2982.4	2888.9	2872.8
25°	4160.8	4096.3	3989.9	3682.0	3312.9	3016.2	2777.6	2622.9	2529.4	2516.5
27.5°	4383.3	4341.4	4048.0	3493.4	3013.0	2695.4	2474.6	2355.3	2286.0	2281.1
30°	4718.6	4697.6	4019.0	3214.5	2643.8	2384.3	2277.9	2208.6	2157.0	2155.4
32.5°	5253.8	5084.6	3923.8	2874.4	2306.9	2163.4	2119.9	2078.0	2037.7	2037.7
35°	5942.2	5397.3	3743.3	2510.0	2102.2	2040.9	1986.1	1920.0	1866.8	1863.6
37.5°	6751.5	5590.8	3419.3	2216.6	2005.4	1958.7	1878.1	1779.8	1686.3	1670.1
40°	7568.8	5648.8	2963.0	2036.1	1944.2	1876.5	1778.1	1662.1	1571.8	1567.0
42.5°	8318.4	5537.6	2479.4	1911.9	1882.9	1792.7	1689.5	1586.3	1515.4	1513.8
45°	8947.1	5249.0	2073.2	1794.3	1818.4	1716.9	1625.0	1541.2	1486.4	1475.1
47.5°	9538.8	4841.1	1787.8	1670.1	1754.0	1675.0	1597.6	1518.6	1465.4	1457.3
50°	10225.5	4401.0	1587.9	1549.2	1697.5	1660.5	1620.2	1537.9	1449.3	1439.6
52.5°	11057.4	4020.6	1431.5	1442.8	1654.0	1679.8	1678.2	1592.8	1438.0	1425.1
55°	11985.9	3598.2	1313.9	1355.8	1636.3	1715.3	1692.7	1644.3	1447.7	1428.3
57.5°	12900.0	3104.9	1231.6	1289.7	1610.5	1712.0	1623.4	1554.1	1470.2	1442.8
60°	13585.1	2442.3	1168.8	1231.6	1554.1	1658.8	1547.6	1455.7	1465.4	1444.4
62.5°	13630.3	1887.8	1093.0	1181.7	1468.6	1605.6	1497.6	1412.2	1486.4	1467.0
65°	12829.1	1426.7	1020.5	1122.0	1376.7	1571.8	1449.3	1388.0	1529.9	1508.9
67.5°	10801.0	1147.8	959.2	1060.8	1284.8	1500.9	1405.7	1365.4	1568.6	1531.5
70°	7797.7	978.5	899.5	986.6	1202.6	1420.3	1367.1	1325.1	1463.8	1405.7
72.5°	4800.8	848.0	831.8	888.3	1139.8	1336.4	1309.0	1249.4	1318.7	1271.9
75°	2397.2	735.1	756.1	791.5	1051.1	1241.3	1212.3	1152.6	1162.3	1152.6
77.5°	1147.8	628.7	667.4	694.8	936.6	1133.3	1102.7	1041.4	1030.1	1031.7
80°	727.1	525.5	562.6	582.0	836.7	1007.6	976.9	915.7	1044.6	968.9
82.5°	454.6	427.2	436.9	472.3	728.7	877.0	836.7	781.9	941.5	744.8
85°	251.5	298.2	311.1	341.8	561.0	733.5	693.2	623.9	559.4	549.7
87.5°	149.9	177.3	182.2	204.7	377.2	530.4	469.1	444.9	369.2	367.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)