

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: P301245

Luminaire Tested: **GLNA-AF-08-LED-E1-T3R-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301245
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194839)
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-T3R-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(8) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 32018.6 lumens
Efficiency: N/A
Efficacy: 124.6 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

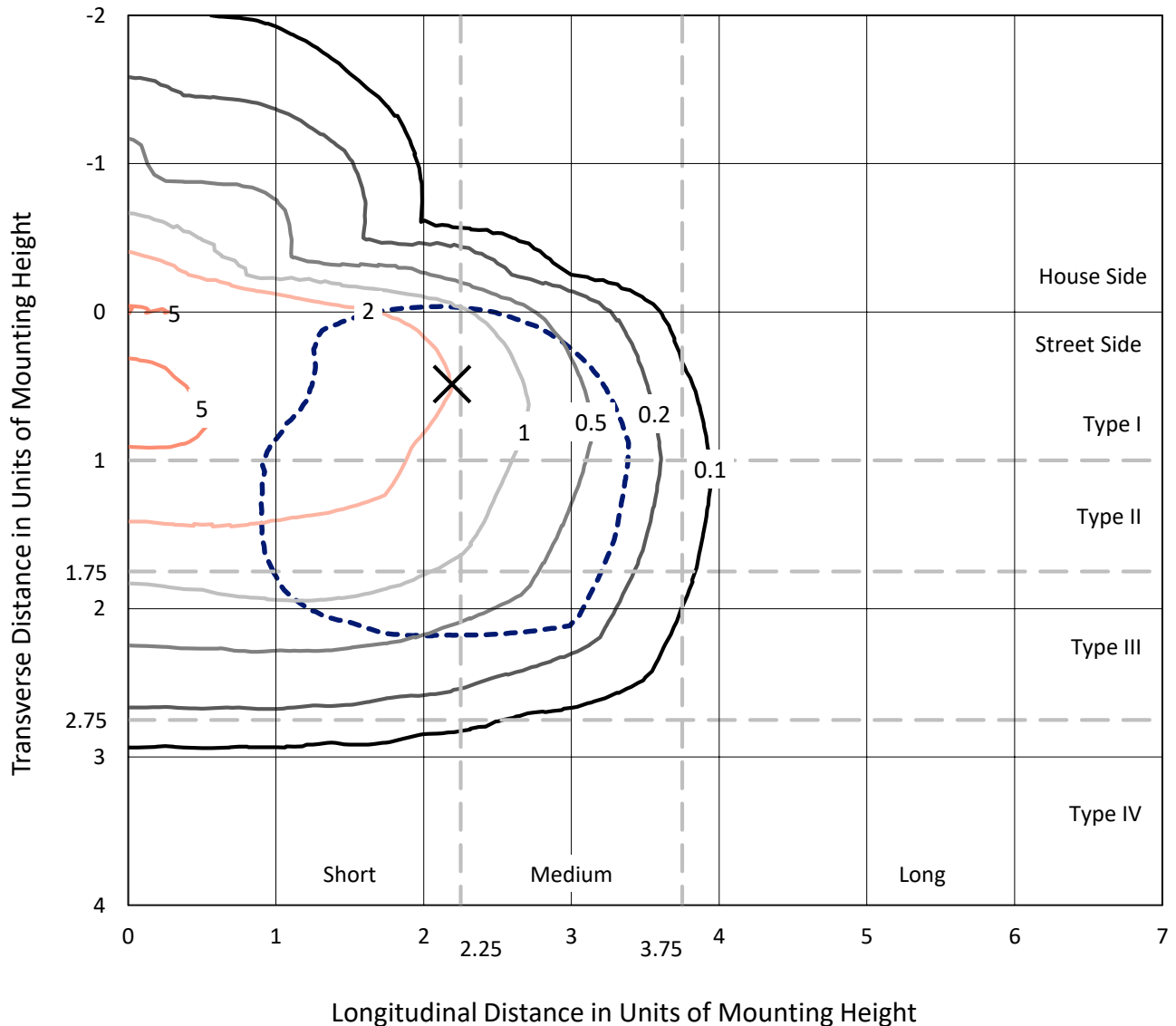
Input Watts (W): 257
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

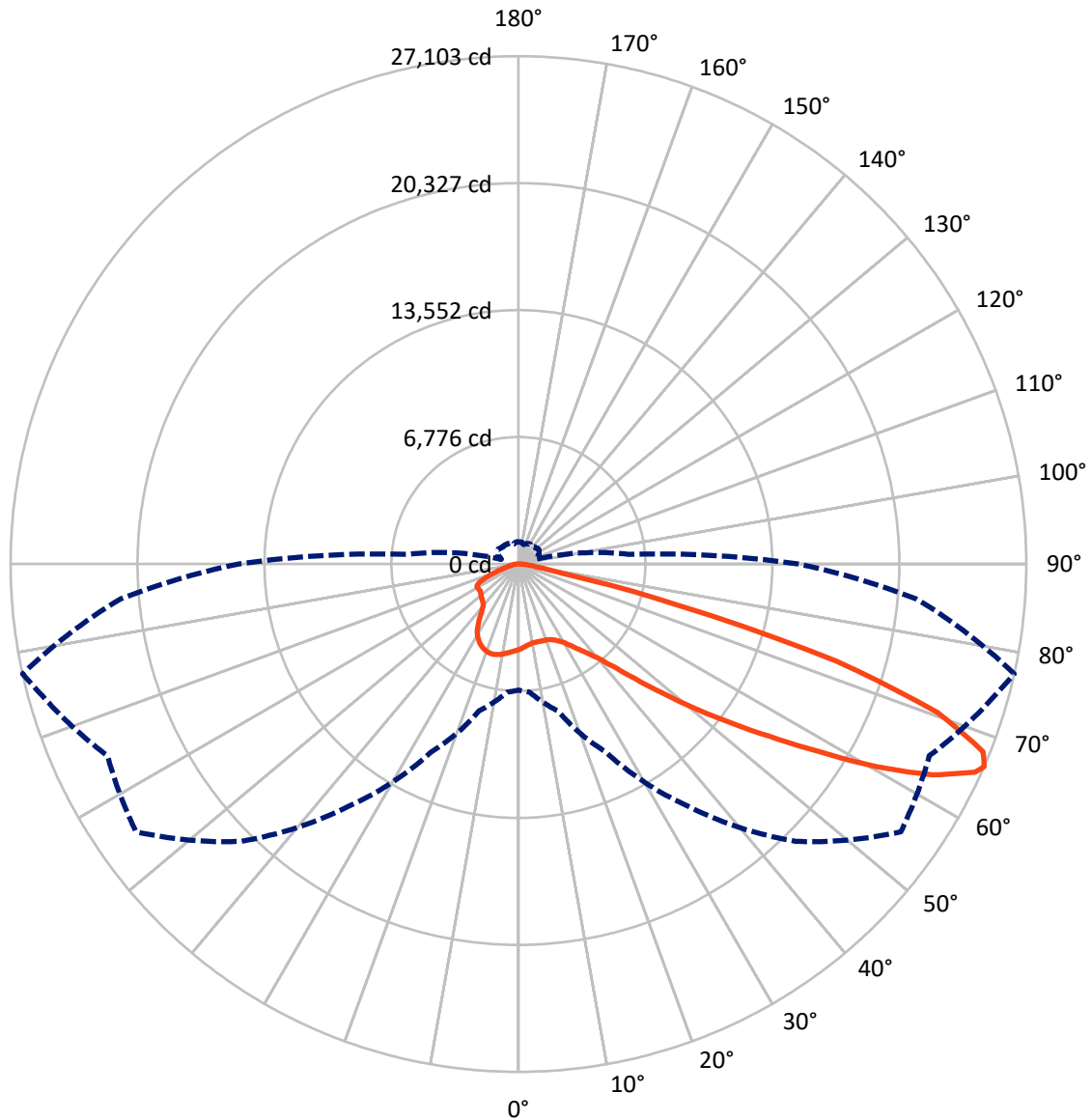
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.2 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5470.2	0.0	5470.2
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	26548.4	0.0	26548.4
	% Fixture	82.9	0.0	82.9
Total	Lumens	32018.6	0.0	32018.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	407.6	1.3
10°-20°	1150.1	3.6
20°-30°	1962.7	6.1
30°-40°	3142.0	9.8
40°-50°	4854.1	15.2
50°-60°	6884.7	21.5
60°-70°	9209.9	28.8
70°-80°	3999.7	12.5
80°-90°	407.8	1.3
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°	32018.6	100.0
0°-180°	32018.6	100.0



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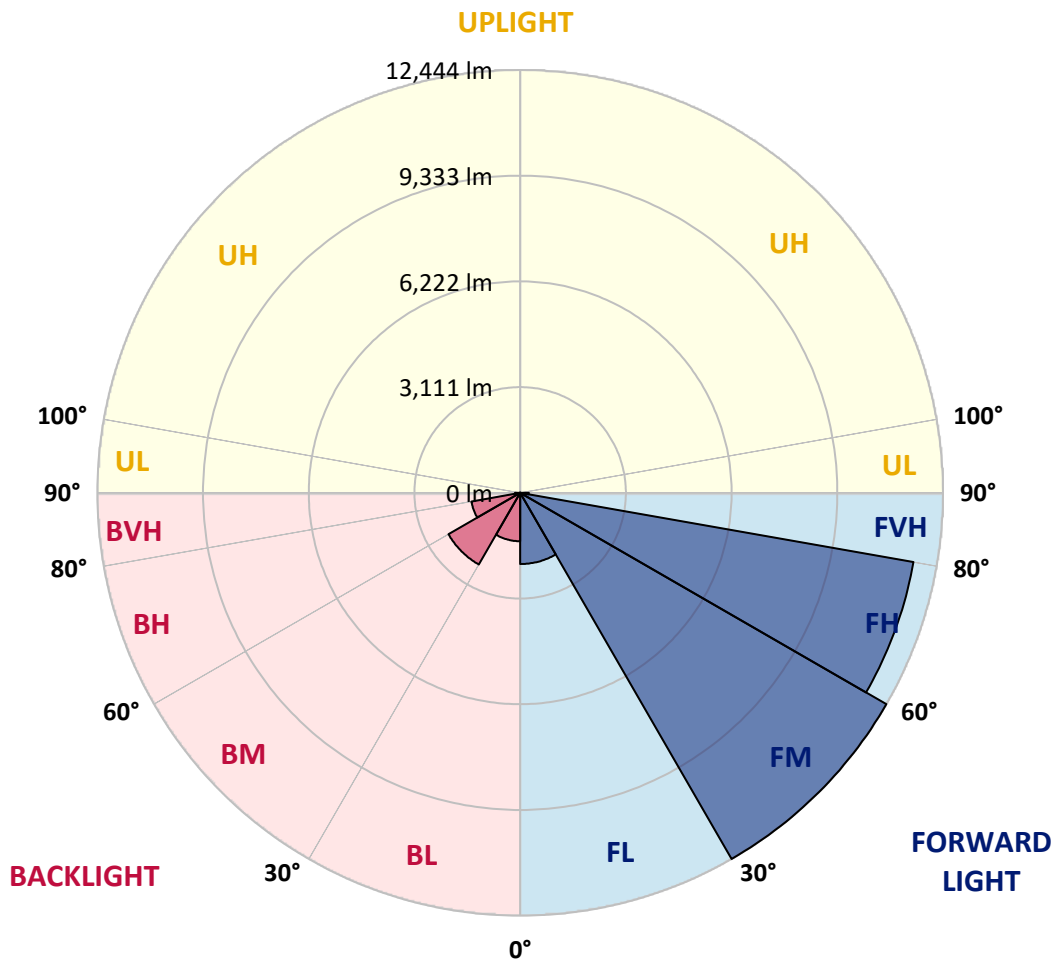
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2095.8	6.5			
FM	(30°-60°)	12444.1	38.9			
FH	(60°-80°)	11752.8	36.7			G4/12000
FVH	(80°-90°)	255.8	0.8			G3/500
BL	(0°-30°)	1424.7	4.4	B3/2500		
BM	(30°-60°)	2436.7	7.6	B2/2500		
BH	(60°-80°)	1456.8	4.5	B3/2500		G3/2500
BVH	(80°-90°)	152.0	0.5			G2/225
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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	4562.8	4562.8	4562.8	4562.8	4562.8	4562.8	4562.8	4562.8	4562.8	4562.8	4562.8
2.5°	4036.4	4063.5	4086.4	4107.4	4149.6	4219.2	4299.4	4364.4	4458.3	4476.6	4526.6
5°	3665.9	3665.9	3683.7	3715.8	3773.1	3877.5	3986.5	4131.7	4336.0	4384.1	4517.4
7.5°	3485.8	3487.2	3497.8	3524.8	3574.7	3670.0	3789.5	3960.9	4237.5	4317.7	4544.4
10°	3552.3	3537.2	3514.2	3501.0	3508.3	3564.2	3677.8	3868.3	4177.1	4279.7	4605.4
12.5°	3924.2	3895.8	3817.0	3712.6	3612.7	3572.0	3638.4	3824.4	4151.4	4271.0	4685.5
15°	4532.5	4520.6	4373.6	4157.4	3915.5	3712.6	3667.2	3807.9	4154.2	4281.5	4780.8
17.5°	5295.2	5278.2	5084.9	4770.3	4375.4	3980.6	3768.5	3821.6	4164.7	4299.4	4872.9
20°	6065.2	6013.4	5805.0	5429.9	4922.8	4344.7	3936.6	3856.4	4178.4	4319.1	4970.0
22.5°	6640.1	6597.5	6410.1	6045.5	5461.5	4767.0	4161.9	3916.9	4222.4	4376.8	5089.1
25°	7145.3	7148.1	6962.1	6609.8	6006.1	5215.0	4452.4	4078.6	4334.2	4494.5	5252.6
27.5°	7770.1	7733.9	7559.8	7210.3	6544.8	5667.1	4803.2	4301.2	4500.9	4662.6	5467.4
30°	8517.2	8491.5	8290.5	7894.2	7142.1	6152.7	5204.0	4559.5	4715.7	4883.4	5748.7
32.5°	9396.2	9384.3	9175.4	8665.6	7831.9	6724.8	5674.9	4901.7	5036.4	5210.5	6152.7
35°	10428.2	10429.6	10183.2	9570.3	8586.8	7390.4	6208.6	5341.9	5426.7	5608.0	6634.1
37.5°	11063.6	11140.5	11048.4	10423.7	9441.6	8134.7	6901.6	5925.9	5871.4	6054.7	7149.9
40°	11199.6	11293.5	11585.3	11267.9	10398.0	8954.6	7515.9	6487.1	6419.3	6642.8	7814.1
42.5°	11009.1	11139.1	11756.6	11980.1	11413.1	9965.1	8341.8	7320.7	7234.6	7535.6	8640.0
45°	10895.5	10992.6	11706.7	12351.2	12293.5	11107.5	9393.5	8367.4	8335.8	8730.7	9593.2
47.5°	10698.9	10786.9	11473.5	12437.3	12811.1	12154.2	10656.8	9647.7	9709.5	10227.1	10668.7
50°	10804.8	10840.9	11213.3	12217.9	12960.9	12921.5	12068.1	11130.0	11342.1	11987.9	11886.7
52.5°	10789.6	10883.5	11183.1	11857.8	12980.6	13395.1	13458.3	12783.6	13230.2	13971.3	13237.5
55°	8723.3	8895.6	10827.7	11767.1	13049.7	13859.1	14696.0	14526.5	15358.3	16222.3	14762.4
57.5°	8329.9	8438.9	9509.8	11957.7	13418.9	14745.9	16072.5	16444.9	17836.5	18839.6	16620.3
60°	8252.4	8387.1	9496.1	12190.9	14167.8	16190.6	18113.6	18767.2	20851.9	21950.3	18774.6
62.5°	8012.0	8157.2	9406.8	12160.2	15231.5	18189.2	20726.4	21236.2	23711.1	24779.3	20576.6
65°	7249.7	7385.8	8679.4	11671.9	15948.8	20322.4	23818.3	23499.5	25968.4	26771.4	21474.8
66°	6727.6	6860.8	8105.9	11097.0	15782.1	20927.5	24914.0	24199.9	26473.7	27103.0	21299.4
67.5°	5773.0	5877.4	6992.3	9809.4	14897.1	21096.9	25835.1	24726.2	26526.3	26749.0	20296.7
70°	3647.5	3677.8	4544.4	6771.5	11277.0	18296.4	24432.5	23419.3	24339.1	23736.8	17015.2
72.5°	1582.6	1572.1	2181.7	3444.6	6384.5	12277.0	19764.0	19323.8	19092.5	17718.7	11911.0
75°	880.4	892.8	1133.2	1599.1	2594.5	6030.4	12928.8	12372.2	10446.1	8913.9	5401.0
77.5°	706.3	723.3	939.5	1134.6	1164.9	2103.0	6050.1	4922.8	2963.7	2378.3	1500.6
80°	558.4	588.6	819.9	883.6	785.1	866.7	1954.5	1562.9	1172.6	1075.5	777.8
82.5°	441.6	463.1	703.6	668.8	549.2	584.0	936.3	912.5	762.7	694.4	449.4
85°	317.9	356.8	578.1	503.9	360.0	393.5	621.6	595.9	437.0	356.8	198.3
87.5°	130.1	169.5	408.6	334.4	201.1	183.2	310.1	291.8	207.0	151.2	98.5
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4562.8	4562.8	4562.8	4562.8	4562.8	4562.8	4562.8	4562.8	4562.8	4562.8	4562.8
2.5°	4558.2	4594.4	4641.5	4670.4	4685.5	4696.0	4712.5	4711.2	4715.7	4717.1	4723.1
5°	4588.4	4648.9	4717.1	4735.4	4735.4	4718.5	4702.0	4674.5	4664.0	4661.2	4664.0
7.5°	4667.2	4733.6	4792.7	4771.6	4726.3	4659.4	4573.3	4497.7	4456.9	4443.2	4440.4
10°	4767.0	4847.2	4871.5	4791.3	4658.0	4497.7	4326.9	4202.7	4131.7	4112.0	4106.1
12.5°	4888.0	4963.6	4930.6	4761.1	4514.2	4255.9	4019.5	3821.6	3673.2	3626.5	3623.3
15°	5021.3	5080.4	4963.6	4667.2	4299.4	3918.3	3497.8	3156.0	2971.4	2912.4	2907.8
17.5°	5145.4	5175.6	4943.9	4503.7	3983.3	3366.3	2807.9	2544.5	2481.3	2496.4	2499.2
20°	5251.2	5251.2	4877.4	4269.1	3485.8	2638.4	2285.7	2281.6	2327.0	2372.3	2381.5
22.5°	5367.6	5297.9	4761.1	3938.0	2780.4	2158.8	2107.5	2149.7	2201.0	2250.9	2258.7
25°	5511.4	5336.0	4598.9	3435.9	2185.9	1960.5	1980.2	2015.0	2040.7	2072.7	2077.3
27.5°	5671.7	5384.1	4385.9	2744.2	1897.3	1836.8	1851.9	1863.9	1860.6	1873.0	1875.8
30°	5863.6	5440.4	4093.7	2145.1	1777.7	1730.6	1703.5	1693.0	1693.0	1712.7	1720.0
32.5°	6121.1	5523.3	3674.6	1838.2	1720.0	1655.0	1567.5	1528.1	1543.2	1609.6	1624.7
35°	6404.2	5612.6	3107.5	1733.8	1708.1	1620.2	1484.1	1411.3	1413.1	1475.0	1494.7
37.5°	6712.4	5726.2	2485.4	1714.1	1735.1	1622.0	1440.1	1340.3	1299.5	1299.5	1307.3
40°	7107.3	5842.6	2012.3	1727.8	1792.9	1639.9	1417.7	1284.4	1169.4	1172.6	1178.6
42.5°	7621.7	5942.4	1758.0	1756.2	1862.5	1664.1	1415.9	1210.2	1110.3	1178.6	1240.4
45°	8193.8	5992.4	1645.8	1782.3	1918.4	1679.3	1392.0	1198.3	1118.1	1320.6	1438.8
47.5°	8851.6	5963.5	1584.0	1791.0	1932.1	1679.3	1364.6	1227.1	1170.8	1529.5	1667.3
50°	9573.5	5880.6	1523.5	1773.2	1927.5	1676.0	1390.2	1255.5	1190.5	1565.7	1660.9
52.5°	10422.3	5811.0	1459.8	1733.8	1895.5	1659.6	1420.4	1243.6	1128.7	1423.7	1490.1
55°	11390.2	5830.7	1388.8	1677.9	1845.5	1628.0	1409.9	1195.1	1063.6	1254.2	1294.9
57.5°	12627.8	6065.2	1304.1	1606.9	1777.7	1574.8	1372.4	1172.6	1043.9	1137.8	1162.1
60°	14008.9	6473.3	1198.3	1535.4	1693.0	1490.1	1343.5	1183.2	1053.1	1128.7	1140.6
62.5°	15022.6	6711.1	1107.6	1431.0	1578.0	1396.2	1307.3	1196.5	1077.4	1160.3	1157.5
65°	15297.9	6320.8	994.0	1278.4	1422.3	1298.1	1261.5	1211.6	1087.9	1185.9	1172.6
66°	14912.2	5900.3	944.1	1207.5	1343.5	1249.6	1239.1	1210.2	1083.3	1189.1	1166.2
67.5°	13975.9	5037.8	857.9	1103.0	1218.0	1177.2	1202.9	1196.5	1070.9	1185.9	1154.3
70°	11397.9	3437.3	733.8	918.4	1013.7	1036.1	1133.2	1148.4	1031.6	1133.2	1063.6
72.5°	7963.9	2093.8	649.1	712.7	819.9	883.6	1038.0	1081.5	978.9	989.4	923.0
75°	3848.6	1112.2	588.6	552.4	636.7	738.4	923.0	990.8	895.5	827.7	803.4
77.5°	1199.7	679.3	499.3	444.8	499.3	595.9	771.4	868.5	797.5	693.0	683.9
80°	644.5	499.3	384.3	356.8	394.8	467.7	606.5	724.7	685.3	621.6	555.2
82.5°	425.1	323.8	284.5	276.7	300.9	356.8	450.7	600.5	600.5	532.7	387.5
85°	219.4	198.3	195.1	195.1	210.3	237.7	306.9	463.1	493.3	281.2	233.2
87.5°	109.0	113.6	105.8	110.4	118.2	116.3	146.6	233.2	278.5	170.9	142.0
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)