

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: P300407

Luminaire Tested: **GLNA-AF-09-LED-E1-T4FT-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300407
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-09-LED-E1-T4FT-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
Forward Throw OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 43103.1 lumens
Efficiency: N/A
Efficacy: 115.2 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G5

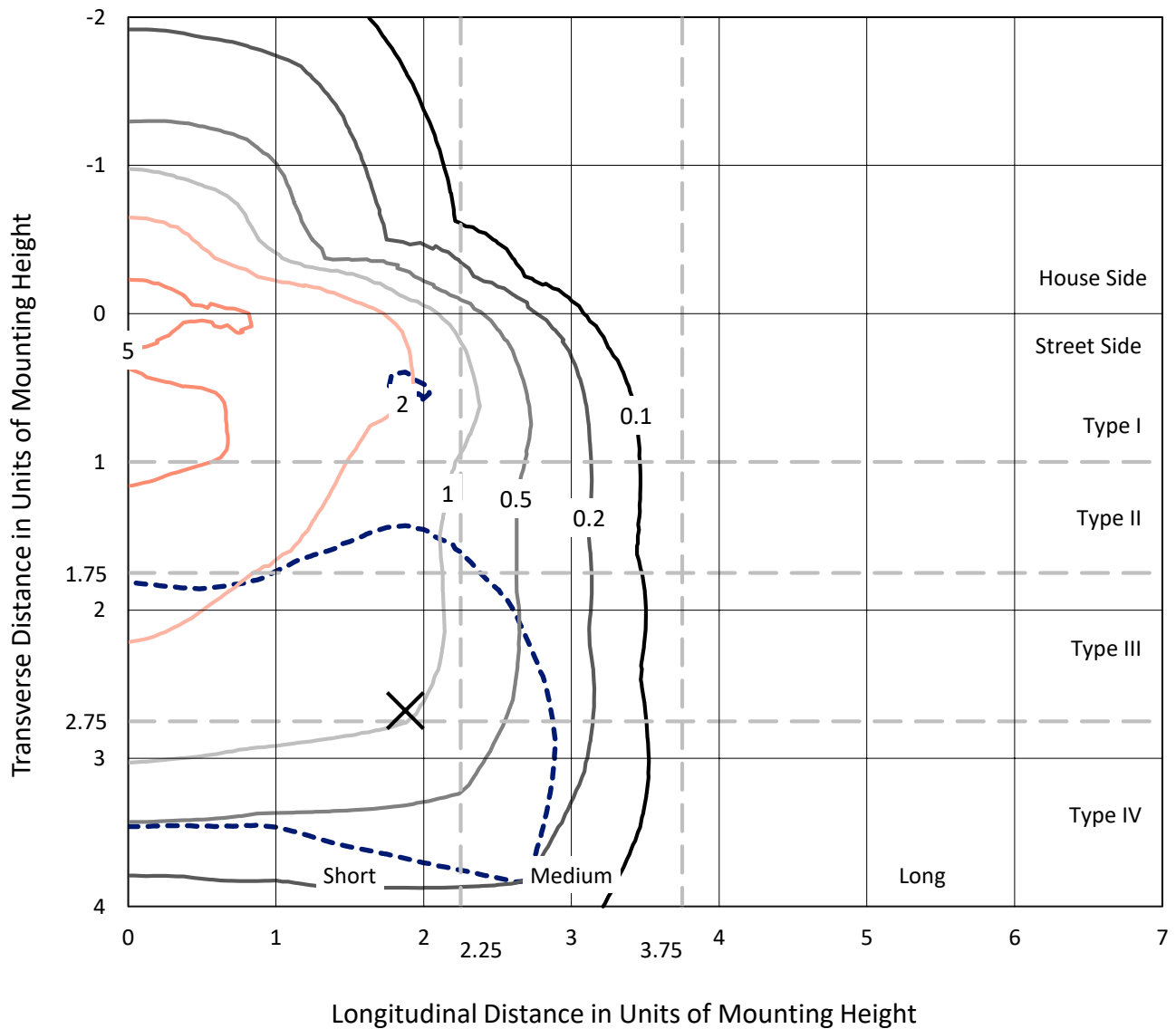
Input Watts (W): 374
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

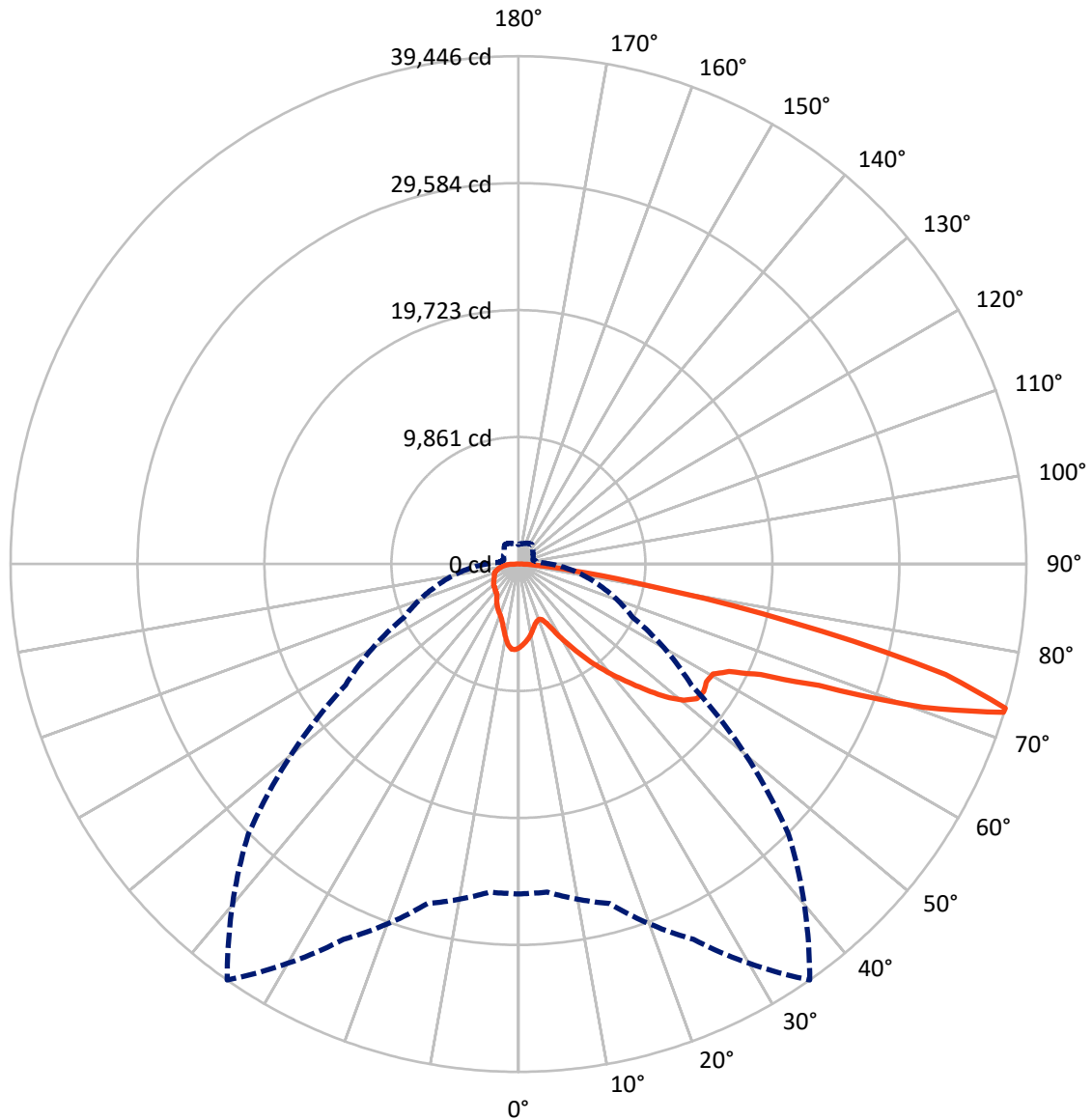
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.2 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	8221.0	0.0	8221.0
	% Fixture	19.1	0.0	19.1
Street Side	Lumens	34882.2	0.0	34882.2
	% Fixture	80.9	0.0	80.9
Total	Lumens	43103.1	0.0	43103.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	588.9	1.4
10°-20°	1469.9	3.4
20°-30°	2376.3	5.5
30°-40°	3984.8	9.2
40°-50°	6142.3	14.3
50°-60°	8240.6	19.1
60°-70°	10978.2	25.5
70°-80°	8373.0	19.4
80°-90°	949.0	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°	43103.1	100.0
0°-180°	43103.1	100.0



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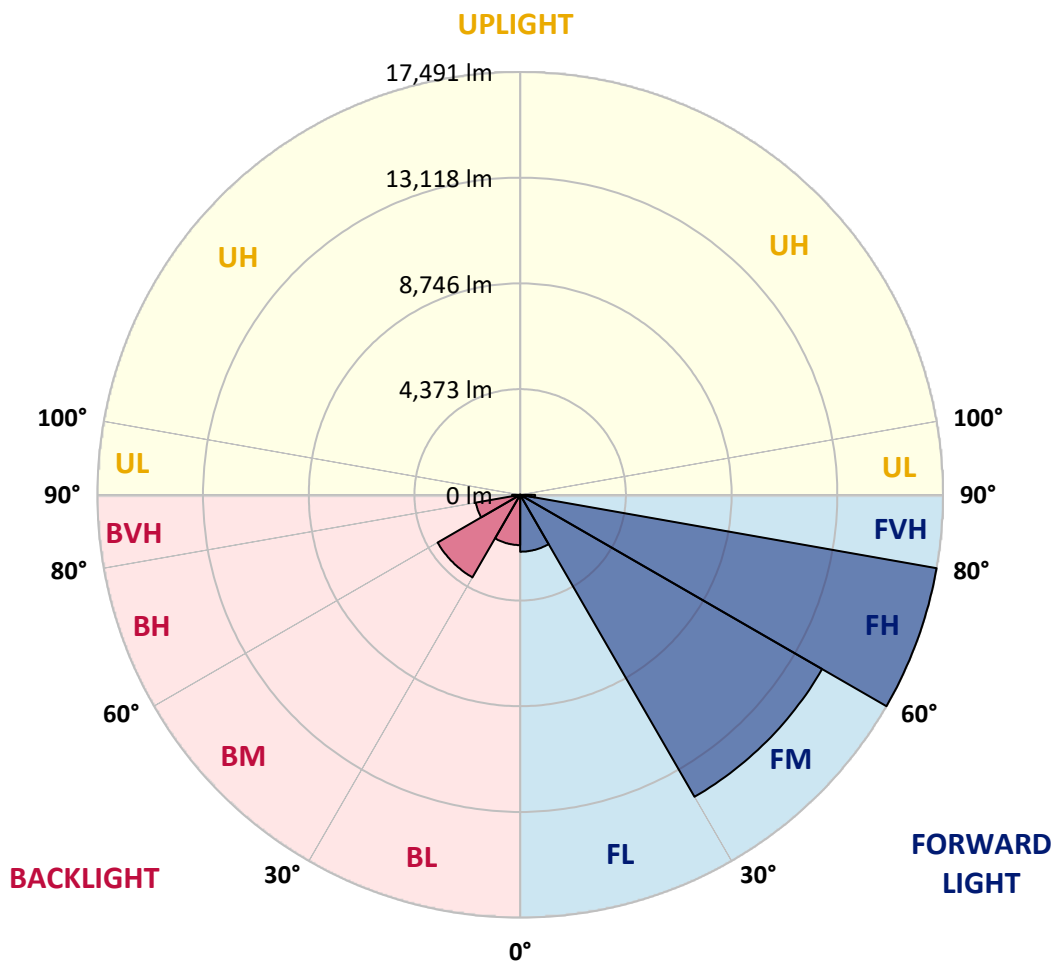
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2354.9	5.5			
FM	(30°-60°)	14422.6	33.5			
FH	(60°-80°)	17491.2	40.6			G5
FVH	(80°-90°)	613.5	1.4			G4/750
BL	(0°-30°)	2080.3	4.8	B3/2500		
BM	(30°-60°)	3945.1	9.2	B3/5000		
BH	(60°-80°)	1859.9	4.3	B3/2500		G3/2500
BVH	(80°-90°)	335.6	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-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	6505.6	6505.6	6505.6	6505.6	6505.6	6505.6	6505.6	6505.6	6505.6	6505.6	6505.6
2.5°	6248.9	6261.4	6246.9	6265.5	6296.5	6329.7	6352.4	6385.5	6422.8	6474.6	6487.0
5°	5955.0	5973.6	5973.6	6006.8	6066.8	6120.6	6170.3	6224.1	6302.8	6391.8	6426.9
7.5°	5632.1	5642.5	5661.1	5710.8	5797.7	5874.3	5944.7	6031.6	6139.2	6257.2	6319.3
10°	5243.0	5257.5	5286.4	5356.8	5474.8	5580.4	5681.8	5801.8	5938.5	6085.4	6164.1
12.5°	4967.7	4963.5	4976.0	5027.7	5131.2	5259.5	5406.5	5559.7	5727.3	5899.1	5994.3
15°	4874.5	4851.8	4804.2	4791.7	4847.6	4976.0	5145.7	5334.1	5534.8	5741.8	5859.8
17.5°	4932.5	4893.2	4762.8	4667.6	4659.3	4756.6	4936.6	5147.8	5379.6	5632.1	5779.1
20°	5296.8	5203.7	4882.8	4661.3	4584.8	4632.4	4789.7	5013.2	5286.4	5621.8	5810.1
22.5°	6168.2	6031.6	5350.6	4938.7	4680.0	4622.0	4740.0	4978.0	5296.8	5750.1	5990.2
25°	7437.0	7242.5	6153.7	5630.0	5096.0	4787.6	4814.5	5058.8	5443.8	6048.2	6337.9
27.5°	8438.9	8312.6	7203.1	6605.0	5853.6	5234.7	5056.7	5261.6	5743.9	6536.6	6832.6
30°	9035.0	8958.4	8325.0	7710.3	6820.2	5946.7	5520.3	5642.5	6213.7	7213.5	7457.7
32.5°	9726.3	9680.8	9370.3	8805.2	7863.4	6882.3	6255.1	6211.7	6843.0	8027.0	8138.7
35°	10442.5	10428.0	10245.9	9840.2	8983.2	8116.0	7230.1	6936.1	7528.1	8871.5	8801.1
37.5°	11109.0	11084.2	10978.6	10742.6	10154.8	9440.7	8223.6	7679.2	8267.1	9678.7	9366.2
40°	12336.4	12141.9	11779.6	11601.6	11338.7	10556.3	9012.2	8372.6	9032.9	10448.7	9854.6
42.5°	13832.9	13516.2	12841.5	12597.2	12560.0	11436.0	9550.4	9045.3	9805.0	11212.5	10334.9
45°	15010.7	14712.6	14131.0	13822.6	13959.2	12232.9	10090.6	9763.6	10599.8	12013.5	10829.6
47.5°	16267.1	15799.3	15029.3	15122.5	15420.5	12986.4	10641.2	10535.6	11471.2	12909.8	11444.3
50°	16312.6	15954.6	15617.2	16174.0	16637.6	13679.8	11330.5	11345.0	12537.2	14037.9	12261.9
52.5°	15366.7	15290.1	15826.2	16701.8	17370.3	14228.3	12114.9	12181.2	13901.2	15333.6	13160.2
55°	15035.5	14948.6	15567.5	16517.6	17469.7	14681.6	12965.7	13085.7	15550.9	16699.7	14035.8
57.5°	15842.8	15650.3	15691.7	16430.6	17227.5	15178.4	13893.0	14135.1	17343.4	17894.0	14598.8
60°	18098.9	17687.0	16904.6	16886.0	17357.9	15923.5	14965.2	15261.1	19206.3	18465.3	14379.4
62.5°	21263.8	20851.9	19386.4	18432.2	18361.8	17153.0	16281.6	16360.2	20282.7	17691.2	13040.2
65°	24689.4	24321.0	22683.7	21336.2	20686.3	19189.8	17811.2	16850.8	19930.8	15561.3	10697.1
67.5°	28847.8	28452.4	27044.9	25800.9	25175.8	22476.7	18885.5	16380.9	17697.4	12054.9	7689.6
70°	31755.9	31352.3	30797.6	31805.6	33335.2	27218.8	19024.2	14470.5	13218.2	8012.5	4628.2
72.5°	27961.9	27773.5	28785.7	33031.0	39402.0	30095.9	17196.5	10535.6	7677.1	4253.6	2678.4
73°	25618.8	25577.4	27303.6	32172.0	39445.5	29653.0	16395.4	9792.6	6584.3	3763.0	2448.7
75°	11568.5	11901.8	15685.5	24573.5	34270.8	24434.8	11539.5	5617.6	3719.6	2599.8	1848.4
77.5°	2779.8	2895.7	4907.7	11669.9	21642.6	14561.5	5228.5	2777.8	2378.3	1836.0	1349.6
80°	1184.0	1223.3	1889.8	4311.5	10190.0	5863.9	2409.3	1860.8	1645.5	1281.2	945.9
82.5°	658.2	699.6	1072.2	1956.0	4112.8	1999.5	1469.6	1295.7	1082.5	772.1	614.8
85°	372.6	395.3	627.2	1092.9	1742.8	803.1	879.7	861.1	610.6	397.4	302.2
87.5°	175.9	190.4	302.2	507.1	683.1	314.6	447.1	492.6	382.9	242.2	157.3
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°	6505.6	6505.6	6505.6	6505.6	6505.6	6505.6	6505.6	6505.6	6505.6	6505.6
2.5°	6501.5	6538.7	6582.2	6605.0	6625.7	6650.5	6675.3	6675.3	6679.5	6681.5
5°	6455.9	6532.5	6600.8	6629.8	6636.0	6636.0	6629.8	6596.7	6567.7	6580.1
7.5°	6360.7	6472.5	6530.4	6520.1	6441.4	6350.4	6273.8	6180.6	6133.0	6124.7
10°	6224.1	6352.4	6362.8	6259.3	6064.7	5870.2	5708.7	5551.4	5476.9	5458.2
12.5°	6073.0	6191.0	6124.7	5911.5	5599.0	5315.4	5110.5	4951.1	4880.8	4862.1
15°	5950.9	6031.6	5863.9	5528.6	5135.3	4835.2	4665.5	4547.5	4497.8	4483.3
17.5°	5886.7	5903.3	5596.9	5143.6	4725.5	4475.1	4369.5	4313.6	4295.0	4284.6
20°	5917.8	5801.8	5342.3	4785.5	4390.2	4214.3	4189.4	4174.9	4170.8	4164.6
22.5°	6073.0	5770.8	5108.4	4446.1	4096.3	4019.7	4040.4	4038.3	4034.2	4030.0
25°	6350.4	5797.7	4880.8	4123.2	3850.0	3833.4	3870.7	3870.7	3854.1	3854.1
27.5°	6716.7	5853.6	4626.2	3816.8	3626.4	3628.5	3657.5	3649.2	3630.6	3618.1
30°	7163.8	5888.8	4328.1	3541.5	3417.4	3409.1	3417.4	3382.2	3326.3	3322.1
32.5°	7621.3	5845.3	3982.4	3297.3	3195.9	3177.2	3171.0	3121.4	3057.2	3038.6
35°	8035.2	5685.9	3630.6	3102.7	2984.8	2943.4	2972.3	2955.8	2897.8	2883.3
37.5°	8337.4	5389.9	3313.9	2930.9	2833.7	2823.3	2841.9	2848.1	2779.8	2765.3
40°	8540.3	4988.4	3042.7	2786.0	2804.7	2765.3	2703.2	2659.8	2639.1	2632.9
42.5°	8703.8	4570.3	2815.0	2717.7	2810.9	2697.0	2562.5	2492.1	2529.4	2545.9
45°	8892.2	4162.5	2624.6	2632.9	2779.8	2618.4	2465.2	2396.9	2411.4	2415.5
47.5°	9150.9	3665.7	2419.7	2496.3	2676.3	2564.6	2405.2	2307.9	2239.6	2208.6
50°	9509.0	3077.9	2206.5	2343.1	2574.9	2525.2	2312.0	2208.6	2082.3	2053.3
52.5°	9757.4	2529.4	2030.5	2214.8	2483.8	2446.6	2237.5	2103.0	1970.5	1945.7
55°	9622.8	2100.9	1877.4	2071.9	2363.8	2349.3	2175.4	1995.4	1891.9	1871.2
57.5°	8950.1	1829.8	1759.4	1937.4	2216.8	2266.5	2092.6	1904.3	1829.8	1815.3
60°	7666.8	1660.0	1684.9	1846.3	2096.8	2183.7	2009.8	1854.6	1804.9	1794.6
62.5°	5948.8	1546.2	1629.0	1780.1	2003.6	2125.8	1964.3	1848.4	1829.8	1817.3
65°	4261.9	1455.1	1569.0	1713.9	1918.8	2071.9	1947.7	1840.1	1844.3	1833.9
67.5°	2895.7	1374.4	1496.5	1639.3	1836.0	2024.3	1925.0	1811.1	1862.9	1850.5
70°	2026.4	1295.7	1411.7	1544.1	1732.5	1958.1	1883.6	1767.7	1763.5	1713.9
72.5°	1581.4	1192.2	1295.7	1411.7	1600.0	1865.0	1800.8	1670.4	1602.1	1550.3
73°	1508.9	1167.4	1266.8	1382.7	1571.0	1842.2	1778.0	1643.5	1566.9	1519.3
75°	1248.1	1059.8	1150.8	1254.3	1446.8	1734.6	1666.2	1521.4	1424.1	1395.1
77.5°	981.1	906.6	993.5	1086.7	1275.0	1577.2	1500.7	1362.0	1308.2	1283.3
80°	726.5	751.4	827.9	910.7	1105.3	1409.6	1341.3	1202.6	1442.7	1382.7
82.5°	511.3	569.2	639.6	714.1	927.3	1246.1	1163.3	1020.4	1055.6	877.6
85°	302.2	372.6	438.8	503.0	668.6	1032.9	960.4	813.5	666.5	635.4
87.5°	175.9	207.0	225.6	291.9	459.5	778.3	676.8	602.3	345.7	233.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)