

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: P300344

Luminaire Tested: **GLNA-AF-09-LED-E1-T4FT-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300344
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-7027
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
Forward Throw OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 46355.4 lumens
Efficiency: N/A
Efficacy: 92.5 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): 501
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

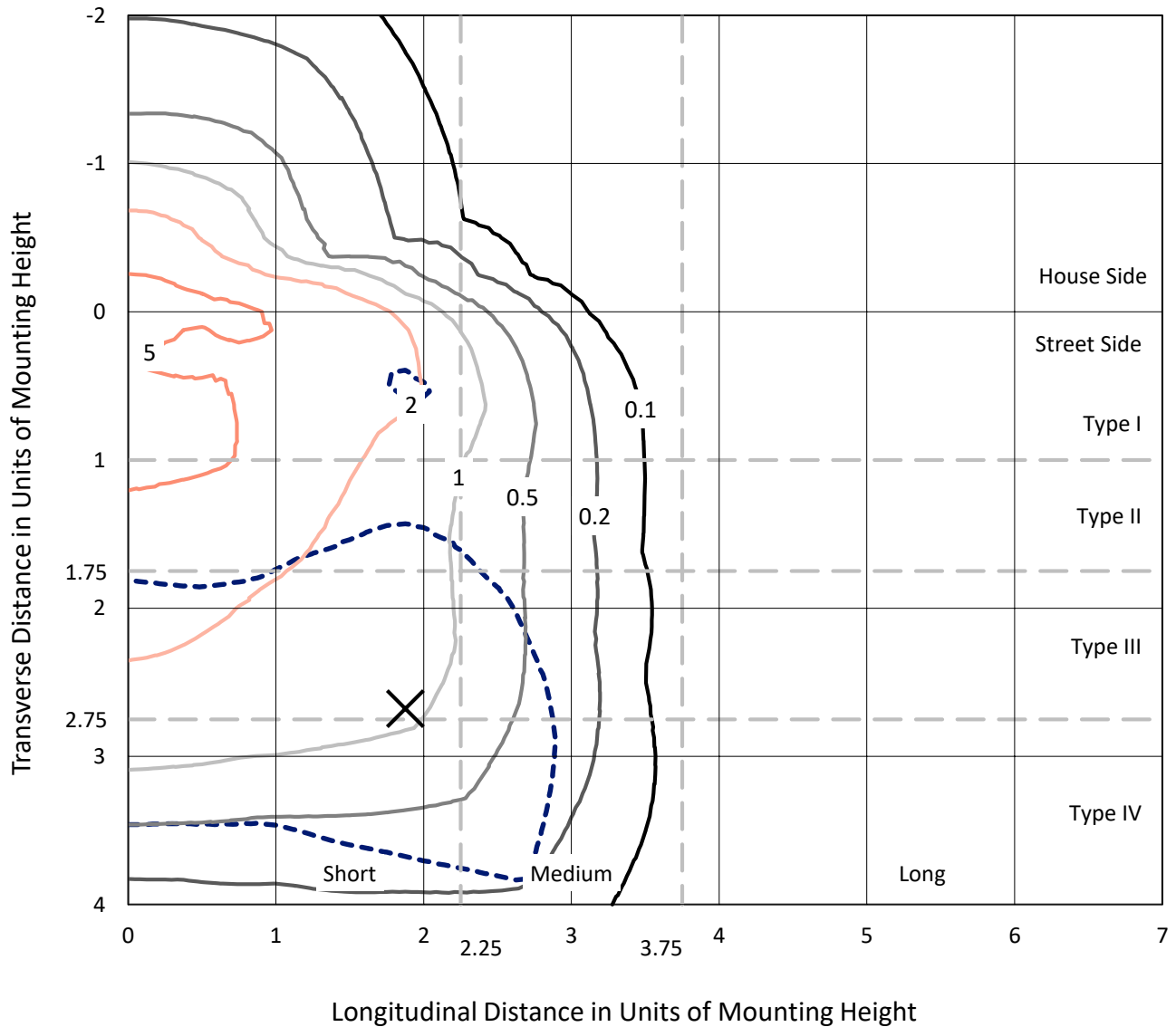


REPORT NUMBER: P300344

CATALOG NUMBER: GLNA-AF-09-LED-E1-T4FT-7027

Iso-Footcandle Lines of Horizontal Illumination

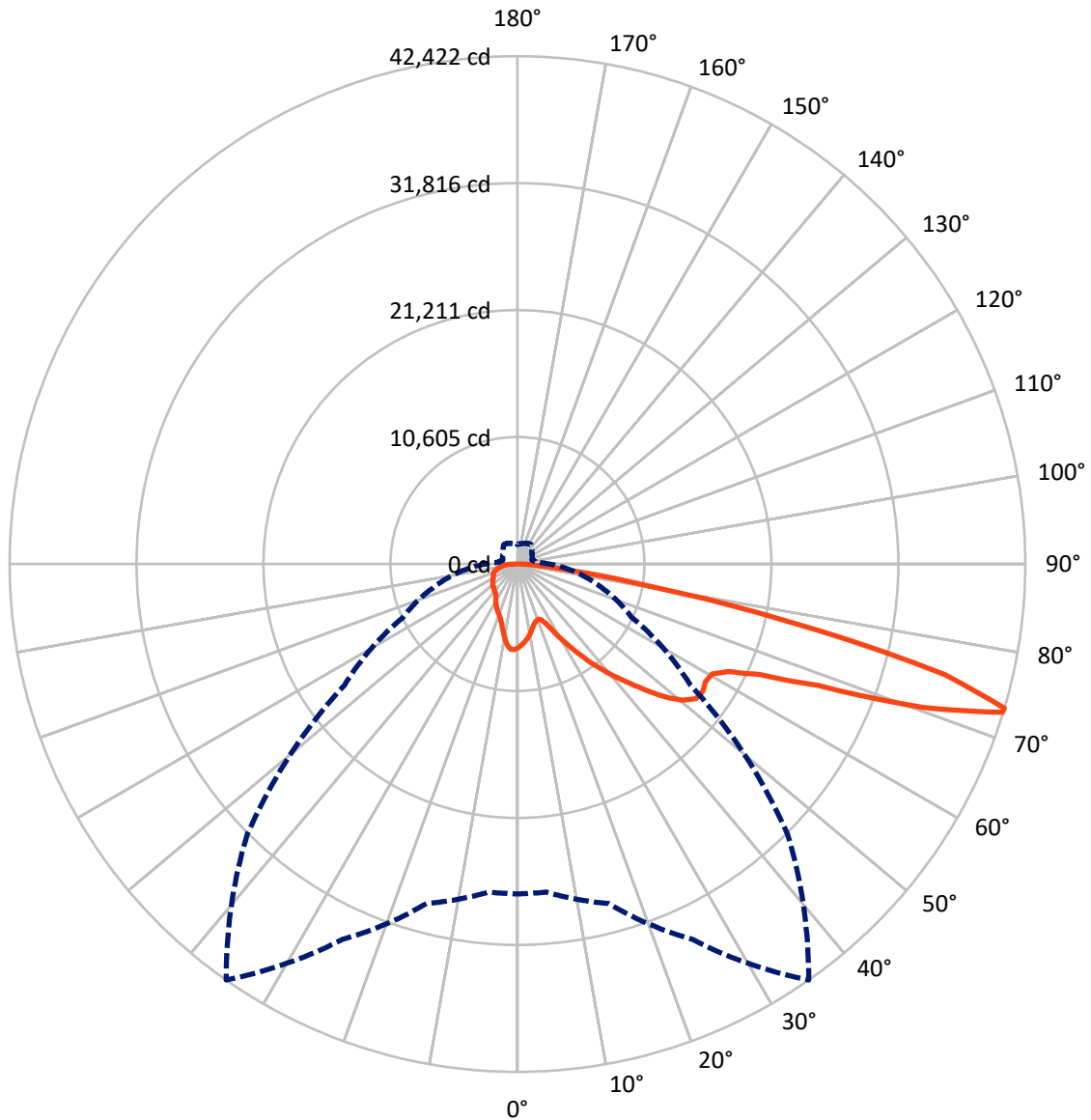
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.8 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P300344
CATALOG NUMBER: GLNA-AF-09-LED-E1-T4FT-7027

Luminous Intensity Polar Plot



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

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CATALOG NUMBER: GLNA-AF-09-LED-E1-T4FT-7027

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8841.3	0.0	8841.3
	% Fixture	19.1	0.0	19.1
Street Side	Lumens	37514.2	0.0	37514.2
	% Fixture	80.9	0.0	80.9
Total	Lumens	46355.4	0.0	46355.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	633.4	1.4
10°-20°	1580.8	3.4
20°-30°	2555.6	5.5
30°-40°	4285.4	9.2
40°-50°	6605.8	14.3
50°-60°	8862.4	19.1
60°-70°	11806.5	25.5
70°-80°	9004.8	19.4
80°-90°	1020.7	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°	46355.4	100.0
0°-180°	46355.4	100.0

Coefficient of Utilization



REPORT NUMBER: P300344

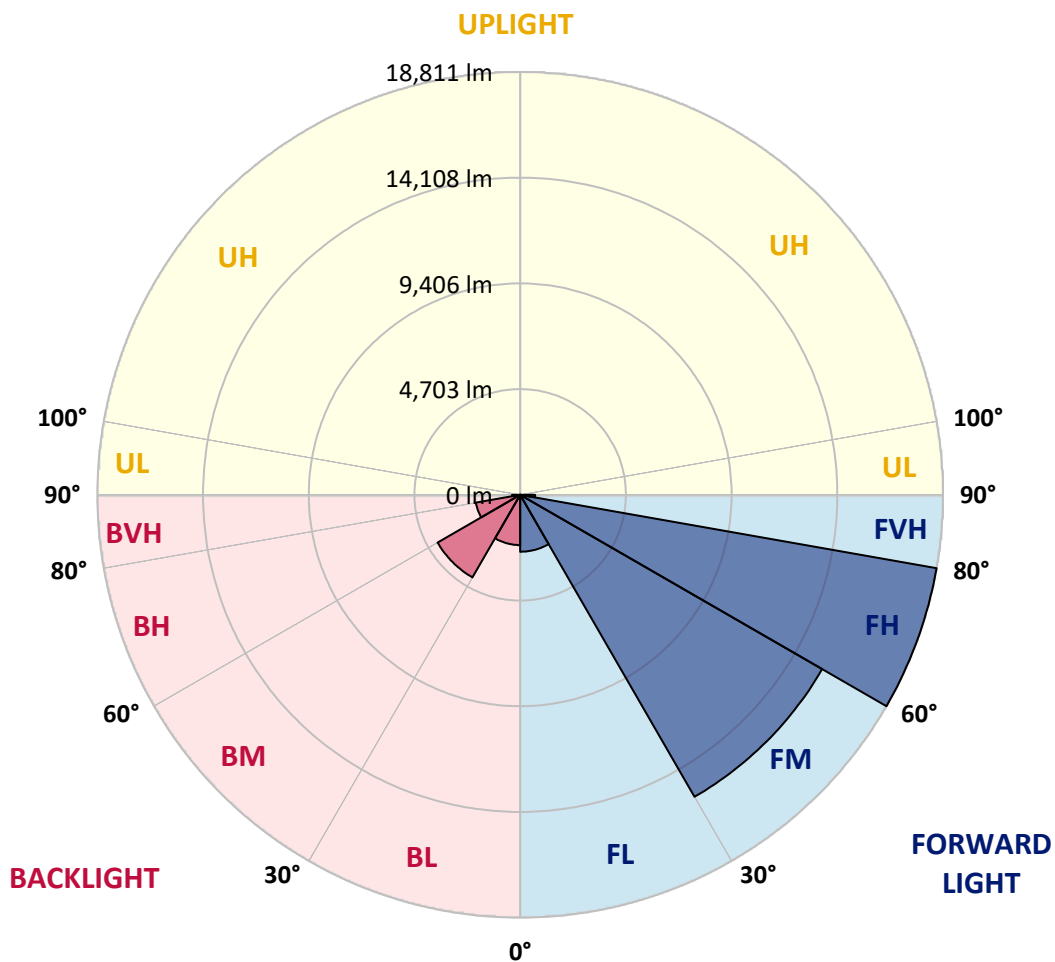
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2532.6	5.5			
FM	(30°-60°)	15510.8	33.5			
FH	(60°-80°)	18811.0	40.6			G5
FVH	(80°-90°)	659.7	1.4			G4/750
BL	(0°-30°)	2237.3	4.8	B3/2500		
BM	(30°-60°)	4242.8	9.2	B3/5000		
BH	(60°-80°)	2000.3	4.3	B3/2500		G3/2500
BVH	(80°-90°)	360.9	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





REPORT NUMBER: P300344

CATALOG NUMBER: GLNA-AF-09-LED-E1-T4FT-7027

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	6996.5	6996.5	6996.5	6996.5	6996.5	6996.5	6996.5	6996.5	6996.5	6996.5	6996.5
2.5°	6720.4	6733.8	6718.2	6738.3	6771.6	6807.3	6831.7	6867.4	6907.4	6963.1	6976.4
5°	6404.3	6424.4	6424.4	6460.0	6524.6	6582.4	6635.9	6693.7	6778.3	6874.0	6911.9
7.5°	6057.1	6068.2	6088.2	6141.7	6235.2	6317.5	6393.2	6486.7	6602.5	6729.3	6796.1
10°	5638.6	5654.2	5685.3	5761.0	5887.9	6001.4	6110.5	6239.6	6386.5	6544.6	6629.2
12.5°	5342.5	5338.1	5351.4	5407.1	5518.4	5656.4	5814.4	5979.2	6159.5	6344.2	6446.6
15°	5242.3	5217.9	5166.7	5153.3	5213.4	5351.4	5534.0	5736.5	5952.5	6175.1	6301.9
17.5°	5304.7	5262.4	5122.1	5019.7	5010.8	5115.5	5309.1	5536.2	5785.5	6057.1	6215.1
20°	5696.5	5596.3	5251.3	5013.1	4930.7	4981.9	5151.1	5391.5	5685.3	6046.0	6248.5
22.5°	6633.6	6486.7	5754.3	5311.4	5033.1	4970.8	5097.7	5353.6	5696.5	6184.0	6442.2
25°	7998.2	7788.9	6618.0	6054.9	5480.5	5148.9	5177.8	5440.5	5854.5	6504.5	6816.2
27.5°	9075.6	8939.8	7746.7	7103.3	6295.3	5629.7	5438.2	5658.6	6177.3	7029.9	7348.2
30°	9716.7	9634.3	8953.2	8292.0	7334.8	6395.4	5936.9	6068.2	6682.6	7757.8	8020.5
32.5°	10460.2	10411.2	10077.3	9469.6	8456.8	7401.6	6727.1	6680.4	7359.3	8632.6	8752.8
35°	11230.4	11214.8	11018.9	10582.6	9661.1	8728.3	7775.6	7459.5	8096.1	9540.8	9465.2
37.5°	11947.2	11920.5	11807.0	11553.2	10921.0	10153.0	8844.1	8258.6	8890.8	10409.0	10072.9
40°	13267.3	13058.0	12668.4	12477.0	12194.3	11352.9	9692.2	9004.4	9714.5	11237.1	10598.2
42.5°	14876.7	14536.1	13810.4	13547.7	13507.7	12298.9	10271.0	9727.8	10544.8	12058.5	11114.7
45°	16143.3	15822.8	15197.2	14865.6	15012.5	13156.0	10852.0	10500.3	11399.6	12920.0	11646.7
47.5°	17494.5	16991.4	16163.3	16263.5	16584.1	13966.2	11444.1	11330.6	12336.8	13883.9	12307.8
50°	17543.5	17158.4	16795.5	17394.3	17893.0	14712.0	12185.4	12201.0	13483.2	15097.1	13187.1
52.5°	16526.2	16443.8	17020.4	17962.0	18681.0	15301.9	13029.1	13100.3	14950.1	16490.6	14153.2
55°	16170.0	16076.5	16742.1	17763.9	18787.9	15789.4	13944.0	14073.1	16724.3	17959.8	15094.8
57.5°	17038.2	16831.2	16875.7	17670.4	18527.4	16323.6	14941.2	15201.7	18652.1	19244.2	15700.3
60°	19464.6	19021.6	18180.1	18160.1	18667.7	17125.0	16094.3	16412.7	20655.5	19858.6	15464.4
62.5°	22868.2	22425.2	20849.2	19823.0	19747.3	18447.3	17510.1	17594.7	21813.1	19026.0	14024.1
65°	26552.3	26156.1	24395.3	22946.1	22247.1	20637.7	19155.2	18122.3	21434.6	16735.4	11504.2
67.5°	31024.5	30599.3	29085.6	27747.7	27075.4	24172.7	20310.5	17617.0	19032.7	12964.5	8269.8
70°	34152.0	33718.0	33121.4	34205.5	35850.5	29272.5	20459.6	15562.3	14215.6	8617.0	4977.4
72.5°	30071.7	29869.1	30957.7	35523.3	42375.1	32366.8	18494.0	11330.6	8256.4	4574.5	2880.5
73°	27551.8	27507.3	29363.8	34599.5	42421.8	31890.4	17632.5	10531.4	7081.1	4047.0	2633.4
75°	12441.4	12799.8	16869.0	26427.7	36856.7	26278.5	12410.2	6041.5	4000.2	2795.9	1987.9
77.5°	2989.6	3114.2	5278.0	12550.5	23275.6	15660.3	5623.0	2987.4	2557.7	1974.5	1451.4
80°	1273.3	1315.6	2032.4	4636.9	10958.8	6306.4	2591.1	2001.2	1769.7	1377.9	1017.3
82.5°	707.9	752.4	1153.1	2103.6	4423.2	2150.4	1580.5	1393.5	1164.2	830.3	661.1
85°	400.7	425.2	674.5	1175.4	1874.3	863.7	946.1	926.0	656.7	427.4	325.0
87.5°	189.2	204.8	325.0	545.4	734.6	338.4	480.8	529.8	411.8	260.4	169.2
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: P300344

CATALOG NUMBER: GLNA-AF-09-LED-E1-T4FT-7027

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6996.5	6996.5	6996.5	6996.5	6996.5	6996.5	6996.5	6996.5	6996.5	6996.5
2.5°	6992.0	7032.1	7078.8	7103.3	7125.6	7152.3	7179.0	7179.0	7183.5	7185.7
5°	6943.0	7025.4	7098.9	7130.0	7136.7	7136.7	7130.0	7094.4	7063.3	7076.6
7.5°	6840.6	6960.9	7023.2	7012.1	6927.5	6829.5	6747.2	6647.0	6595.8	6586.9
10°	6693.7	6831.7	6842.9	6731.6	6522.3	6313.1	6139.4	5970.3	5890.1	5870.1
12.5°	6531.2	6658.1	6586.9	6357.6	6021.5	5716.5	5496.1	5324.7	5249.0	5229.0
15°	6399.9	6486.7	6306.4	5945.8	5522.8	5200.1	5017.5	4890.6	4837.2	4821.6
17.5°	6330.9	6348.7	6019.2	5531.7	5082.1	4812.7	4699.2	4639.1	4619.1	4607.9
20°	6364.3	6239.6	5745.4	5146.6	4721.5	4532.2	4505.5	4489.9	4485.5	4478.8
22.5°	6531.2	6206.2	5493.9	4781.6	4405.4	4323.0	4345.2	4343.0	4338.6	4334.1
25°	6829.5	6235.2	5249.0	4434.3	4140.5	4122.6	4162.7	4162.7	4144.9	4144.9
27.5°	7223.5	6295.3	4975.2	4104.8	3900.0	3902.3	3933.4	3924.5	3904.5	3891.1
30°	7704.4	6333.1	4654.7	3808.8	3675.2	3666.3	3675.2	3637.4	3577.3	3572.8
32.5°	8196.3	6286.4	4282.9	3546.1	3437.0	3417.0	3410.3	3356.9	3287.9	3267.8
35°	8641.5	6115.0	3904.5	3336.8	3210.0	3165.4	3196.6	3178.8	3116.5	3100.9
37.5°	8966.5	5796.6	3563.9	3152.1	3047.5	3036.3	3056.4	3063.0	2989.6	2974.0
40°	9184.7	5364.8	3272.3	2996.3	3016.3	2974.0	2907.2	2860.5	2838.2	2831.5
42.5°	9360.5	4915.1	3027.4	2922.8	3023.0	2900.5	2755.8	2680.2	2720.2	2738.0
45°	9563.1	4476.6	2822.6	2831.5	2989.6	2816.0	2651.2	2577.8	2593.3	2597.8
47.5°	9841.4	3942.3	2602.3	2684.6	2878.3	2758.1	2586.7	2482.0	2408.6	2375.2
50°	10226.5	3310.1	2373.0	2519.9	2769.2	2715.8	2486.5	2375.2	2239.4	2208.2
52.5°	10493.6	2720.2	2183.8	2381.9	2671.3	2631.2	2406.4	2261.7	2119.2	2092.5
55°	10348.9	2259.4	2019.0	2228.3	2542.1	2526.6	2339.6	2145.9	2034.6	2012.3
57.5°	9625.4	1967.8	1892.1	2083.6	2384.1	2437.5	2250.5	2048.0	1967.8	1952.2
60°	8245.3	1785.3	1812.0	1985.6	2255.0	2348.5	2161.5	1994.5	1941.1	1930.0
62.5°	6397.7	1662.9	1751.9	1914.4	2154.8	2286.2	2112.5	1987.9	1967.8	1954.5
65°	4583.4	1564.9	1687.3	1843.2	2063.5	2228.3	2094.7	1979.0	1983.4	1972.3
67.5°	3114.2	1478.1	1609.4	1763.0	1974.5	2177.1	2070.2	1947.8	2003.4	1990.1
70°	2179.3	1393.5	1518.2	1660.6	1863.2	2105.8	2025.7	1901.0	1896.6	1843.2
72.5°	1700.7	1282.2	1393.5	1518.2	1720.7	2005.7	1936.7	1796.4	1723.0	1667.3
73°	1622.8	1255.5	1362.3	1487.0	1689.6	1981.2	1912.2	1767.5	1685.1	1633.9
75°	1342.3	1139.7	1237.7	1349.0	1556.0	1865.4	1792.0	1636.1	1531.5	1500.4
77.5°	1055.1	975.0	1068.5	1168.7	1371.2	1696.2	1613.9	1464.7	1406.9	1380.2
80°	781.3	808.1	890.4	979.5	1188.7	1515.9	1442.5	1293.3	1551.6	1487.0
82.5°	549.8	612.2	687.8	768.0	997.3	1340.1	1251.0	1097.4	1135.3	943.8
85°	325.0	400.7	471.9	540.9	719.0	1110.8	1032.9	874.8	716.8	683.4
87.5°	189.2	222.6	242.6	313.9	494.2	837.0	727.9	647.8	371.8	251.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)