

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: P300318

Luminaire Tested: **GLNA-AF-04-LED-E1-T4FT-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300318
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-04-LED-E1-T4FT-7050
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 5000K 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: 24073.9 lumens
Efficiency: N/A
Efficacy: 107.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G4

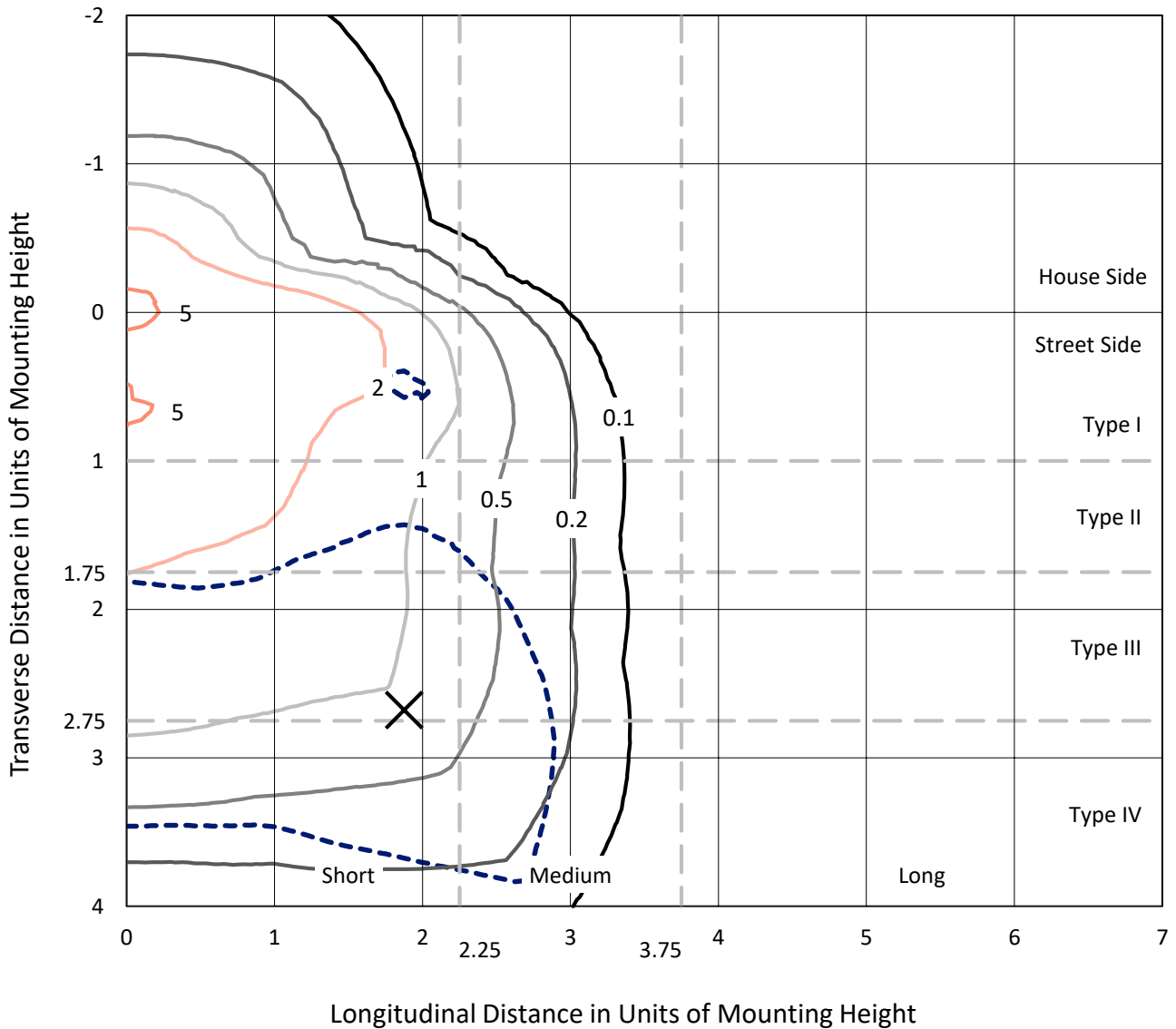
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

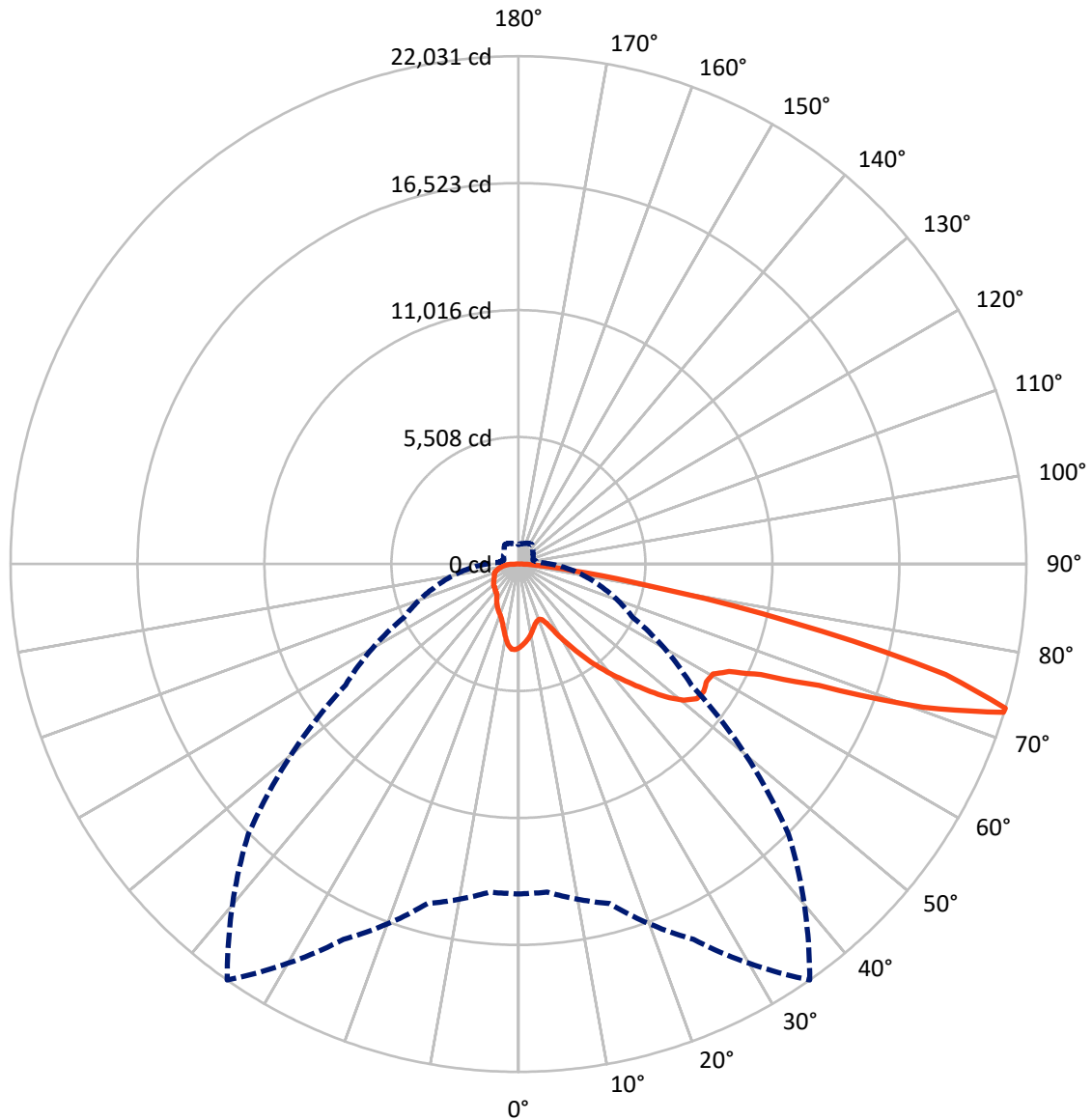
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.8 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	4591.6	0.0	4591.6
	% Fixture	19.1	0.0	19.1
Street Side	Lumens	19482.4	0.0	19482.4
	% Fixture	80.9	0.0	80.9
Total	Lumens	24073.9	0.0	24073.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	328.9	1.4
10°-20°	821.0	3.4
20°-30°	1327.2	5.5
30°-40°	2225.6	9.2
40°-50°	3430.6	14.3
50°-60°	4602.5	19.1
60°-70°	6131.5	25.5
70°-80°	4676.5	19.4
80°-90°	530.1	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°	24073.9	100.0
0°-180°	24073.9	100.0



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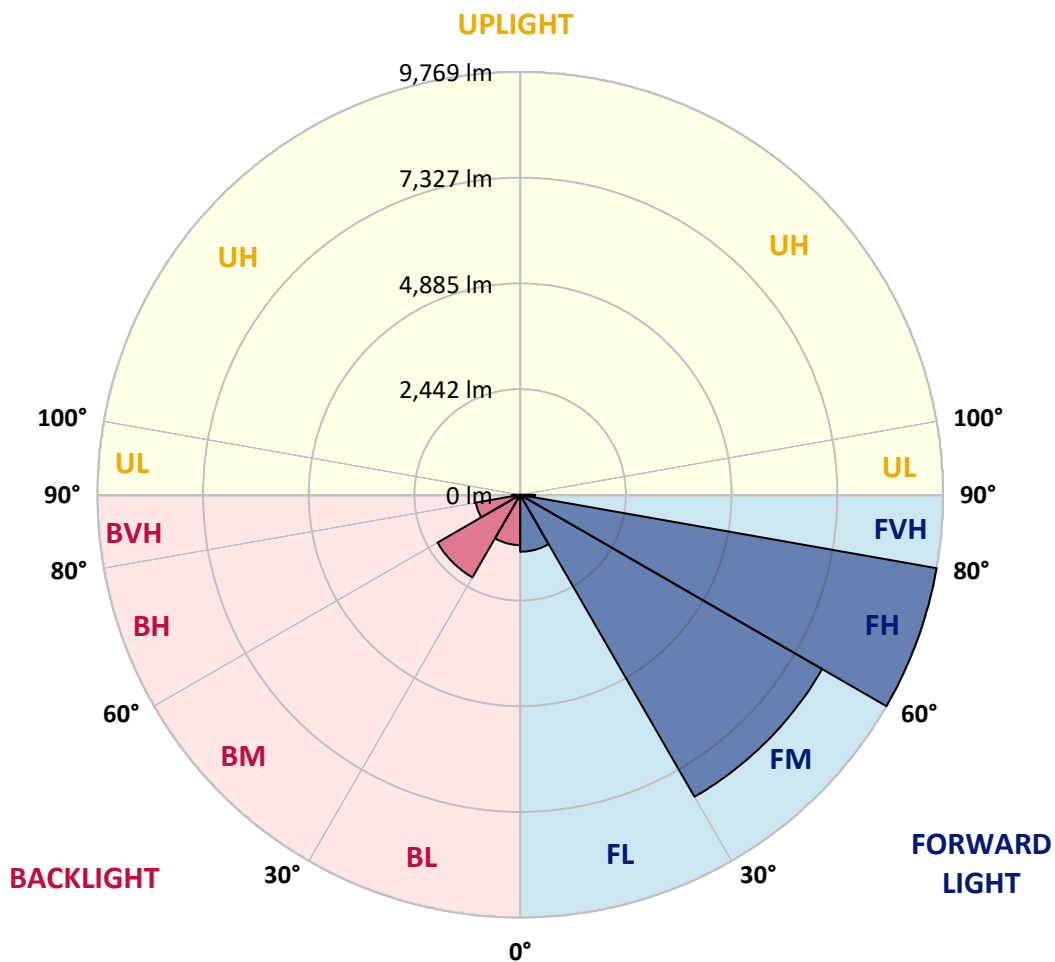
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1315.2	5.5			
FM	(30°-60°)	8055.3	33.5			
FH	(60°-80°)	9769.2	40.6			G4/12000
FVH	(80°-90°)	342.6	1.4			G3/500
BL	(0°-30°)	1161.9	4.8	B3/2500		
BM	(30°-60°)	2203.4	9.2	B2/2500		
BH	(60°-80°)	1038.8	4.3	B3/2500		G3/2500
BVH	(80°-90°)	187.4	0.8			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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3633.5	3633.5	3633.5	3633.5	3633.5	3633.5	3633.5	3633.5	3633.5	3633.5	3633.5
2.5°	3490.2	3497.1	3489.0	3499.4	3516.7	3535.2	3548.0	3566.5	3587.3	3616.2	3623.1
5°	3326.0	3336.4	3336.4	3354.9	3388.4	3418.5	3446.2	3476.3	3520.2	3569.9	3589.6
7.5°	3145.6	3151.4	3161.8	3189.6	3238.1	3280.9	3320.2	3368.8	3428.9	3494.8	3529.5
10°	2928.3	2936.4	2952.6	2991.9	3057.8	3116.7	3173.4	3240.4	3316.7	3398.8	3442.8
12.5°	2774.5	2772.2	2779.2	2808.1	2865.9	2937.6	3019.6	3105.2	3198.8	3294.8	3348.0
15°	2722.5	2709.8	2683.2	2676.3	2707.5	2779.2	2874.0	2979.2	3091.3	3206.9	3272.8
17.5°	2754.9	2732.9	2660.1	2606.9	2602.3	2656.6	2757.2	2875.1	3004.6	3145.6	3227.7
20°	2958.4	2906.3	2727.1	2603.5	2560.7	2587.3	2675.1	2800.0	2952.6	3139.9	3245.1
22.5°	3445.1	3368.8	2988.4	2758.4	2613.9	2581.5	2647.4	2780.3	2958.4	3211.5	3345.6
25°	4153.7	4045.1	3437.0	3144.5	2846.2	2674.0	2689.0	2825.4	3040.4	3378.0	3539.9
27.5°	4713.3	4642.7	4023.1	3689.0	3269.3	2923.7	2824.3	2938.7	3208.1	3650.8	3816.2
30°	5046.2	5003.4	4649.7	4306.3	3809.2	3321.4	3083.2	3151.4	3470.5	4028.9	4165.3
32.5°	5432.3	5406.9	5233.5	4917.9	4391.9	3843.9	3493.6	3469.3	3821.9	4483.2	4545.6
35°	5832.3	5824.2	5722.5	5495.9	5017.3	4532.9	4038.1	3874.0	4204.6	4954.9	4915.6
37.5°	6204.6	6190.7	6131.8	6000.0	5671.6	5272.8	4593.0	4289.0	4617.3	5405.7	5231.2
40°	6890.1	6781.5	6579.1	6479.7	6332.9	5895.9	5033.5	4676.3	5045.1	5835.8	5504.0
42.5°	7726.0	7549.1	7172.2	7035.8	7015.0	6387.2	5334.1	5052.0	5476.3	6262.4	5772.2
45°	8383.8	8217.3	7892.4	7720.2	7796.5	6832.3	5635.8	5453.1	5920.2	6709.8	6048.5
47.5°	9085.5	8824.2	8394.2	8446.2	8612.7	7253.1	5943.3	5884.4	6406.9	7210.4	6391.9
50°	9110.9	8910.9	8722.5	9033.5	9292.4	7640.4	6328.3	6336.4	7002.3	7840.4	6848.5
52.5°	8582.6	8539.8	8839.2	9328.3	9701.7	7946.8	6766.4	6803.4	7764.1	8564.1	7350.2
55°	8397.6	8349.1	8694.7	9225.4	9757.2	8199.9	7241.6	7308.6	8685.5	9327.1	7839.3
57.5°	8848.5	8741.0	8764.1	9176.8	9621.9	8477.4	7759.5	7894.7	9686.6	9994.2	8153.7
60°	10108.6	9878.5	9441.6	9431.2	9694.7	8893.6	8358.3	8523.6	10727.1	10313.2	8031.2
62.5°	11876.2	11646.2	10827.7	10294.7	10255.4	9580.3	9093.6	9137.5	11328.2	9880.9	7283.2
65°	13789.5	13583.7	12669.3	11916.7	11553.7	10717.8	9947.9	9411.5	11131.7	8691.3	5974.5
67.5°	16112.0	15891.2	15105.1	14410.3	14061.2	12553.7	10547.9	9149.1	9884.3	6732.9	4294.8
70°	17736.3	17510.9	17201.0	17764.0	18618.4	15202.2	10625.4	8082.0	7382.6	4475.1	2585.0
72.5°	15617.2	15512.0	16077.3	18448.4	22006.8	16809.1	9604.6	5884.4	4287.8	2375.7	1495.9
73°	14308.6	14285.5	15249.6	17968.7	22031.1	16561.7	9157.2	5469.3	3677.4	2101.7	1367.6
75°	6461.2	6647.4	8760.6	13724.8	19140.9	13647.3	6445.0	3137.6	2077.4	1452.0	1032.4
77.5°	1552.6	1617.3	2741.0	6517.9	12087.8	8132.9	2920.2	1551.4	1328.3	1025.4	753.8
80°	661.3	683.2	1055.5	2408.1	5691.3	3275.1	1345.7	1039.3	919.1	715.6	528.3
82.5°	367.6	390.7	598.8	1092.5	2297.1	1116.8	820.8	723.7	604.6	431.2	343.4
85°	208.1	220.8	350.3	610.4	973.4	448.6	491.3	480.9	341.0	222.0	168.8
87.5°	98.3	106.4	168.8	283.2	381.5	175.7	249.7	275.1	213.9	135.3	87.9
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°	3633.5	3633.5	3633.5	3633.5	3633.5	3633.5	3633.5	3633.5	3633.5	3633.5
2.5°	3631.2	3652.0	3676.3	3689.0	3700.6	3714.4	3728.3	3728.3	3730.6	3731.8
5°	3605.8	3648.5	3686.7	3702.9	3706.3	3706.3	3702.9	3684.4	3668.2	3675.1
7.5°	3552.6	3615.0	3647.4	3641.6	3597.7	3546.8	3504.0	3452.0	3425.4	3420.8
10°	3476.3	3548.0	3553.7	3495.9	3387.3	3278.6	3188.4	3100.6	3058.9	3048.5
12.5°	3391.9	3457.8	3420.8	3301.7	3127.1	2968.8	2854.3	2765.3	2726.0	2715.6
15°	3323.7	3368.8	3275.1	3087.8	2868.2	2700.6	2605.8	2539.9	2512.1	2504.0
17.5°	3287.8	3297.1	3126.0	2872.8	2639.3	2499.4	2440.4	2409.2	2398.8	2393.0
20°	3305.2	3240.4	2983.8	2672.8	2452.0	2353.7	2339.9	2331.8	2329.5	2326.0
22.5°	3391.9	3223.1	2853.2	2483.2	2287.8	2245.1	2256.6	2255.5	2253.2	2250.9
25°	3546.8	3238.1	2726.0	2302.9	2150.3	2141.0	2161.8	2161.8	2152.6	2152.6
27.5°	3751.4	3269.3	2583.8	2131.8	2025.4	2026.6	2042.8	2038.1	2027.7	2020.8
30°	4001.1	3289.0	2417.3	1978.0	1908.7	1904.0	1908.7	1889.0	1857.8	1855.5
32.5°	4256.6	3264.7	2224.3	1841.6	1785.0	1774.6	1771.1	1743.3	1707.5	1697.1
35°	4487.8	3175.7	2027.7	1732.9	1667.0	1643.9	1660.1	1650.9	1618.5	1610.4
37.5°	4656.6	3010.4	1850.9	1637.0	1582.6	1576.9	1587.3	1590.7	1552.6	1544.5
40°	4769.9	2786.1	1699.4	1556.1	1566.5	1544.5	1509.8	1485.5	1474.0	1470.5
42.5°	4861.2	2552.6	1572.2	1517.9	1569.9	1506.3	1431.2	1391.9	1412.7	1422.0
45°	4966.4	2324.8	1465.9	1470.5	1552.6	1462.4	1376.9	1338.7	1346.8	1349.1
47.5°	5110.9	2047.4	1351.4	1394.2	1494.8	1432.4	1343.3	1289.0	1250.9	1233.5
50°	5310.9	1719.1	1232.4	1308.7	1438.1	1410.4	1291.3	1233.5	1163.0	1146.8
52.5°	5449.7	1412.7	1134.1	1237.0	1387.3	1366.5	1249.7	1174.6	1100.6	1086.7
55°	5374.5	1173.4	1048.5	1157.2	1320.2	1312.1	1215.0	1114.4	1056.6	1045.1
57.5°	4998.8	1022.0	982.7	1082.1	1238.1	1265.9	1168.8	1063.6	1022.0	1013.9
60°	4282.1	927.2	941.0	1031.2	1171.1	1219.6	1122.5	1035.8	1008.1	1002.3
62.5°	3322.5	863.6	909.8	994.2	1119.1	1187.3	1097.1	1032.4	1022.0	1015.0
65°	2380.3	812.7	876.3	957.2	1071.7	1157.2	1087.9	1027.7	1030.1	1024.3
67.5°	1617.3	767.6	835.8	915.6	1025.4	1130.6	1075.1	1011.6	1040.5	1033.5
70°	1131.8	723.7	788.4	862.4	967.6	1093.6	1052.0	987.3	985.0	957.2
72.5°	883.2	665.9	723.7	788.4	893.6	1041.6	1005.8	932.9	894.8	865.9
73°	842.8	652.0	707.5	772.2	877.5	1028.9	993.1	917.9	875.1	848.5
75°	697.1	591.9	642.8	700.6	808.1	968.8	930.6	849.7	795.4	779.2
77.5°	548.0	506.4	554.9	606.9	712.1	880.9	838.1	760.7	730.6	716.8
80°	405.8	419.7	462.4	508.7	617.3	787.3	749.1	671.7	805.8	772.2
82.5°	285.5	317.9	357.2	398.8	517.9	695.9	649.7	569.9	589.6	490.2
85°	168.8	208.1	245.1	280.9	373.4	576.9	536.4	454.3	372.3	354.9
87.5°	98.3	115.6	126.0	163.0	256.6	434.7	378.0	336.4	193.1	130.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)