

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: P300464

Luminaire Tested: **GLNA-AF-09-LED-E1-T4FT-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300464
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-7027-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
Forward Throw OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30537.3 lumens
Efficiency: N/A
Efficacy: 105.3 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

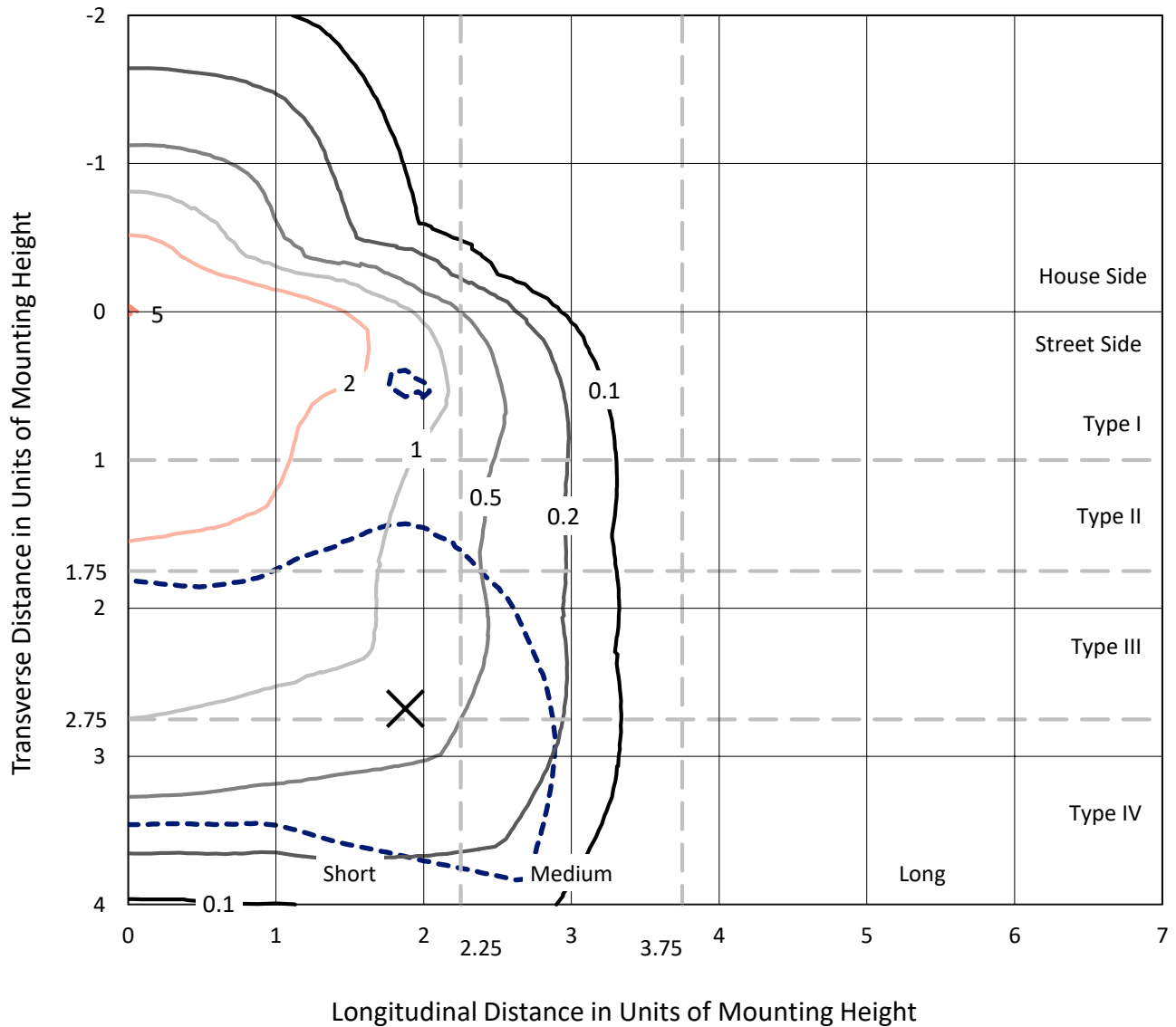
Input Watts (W): 290
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

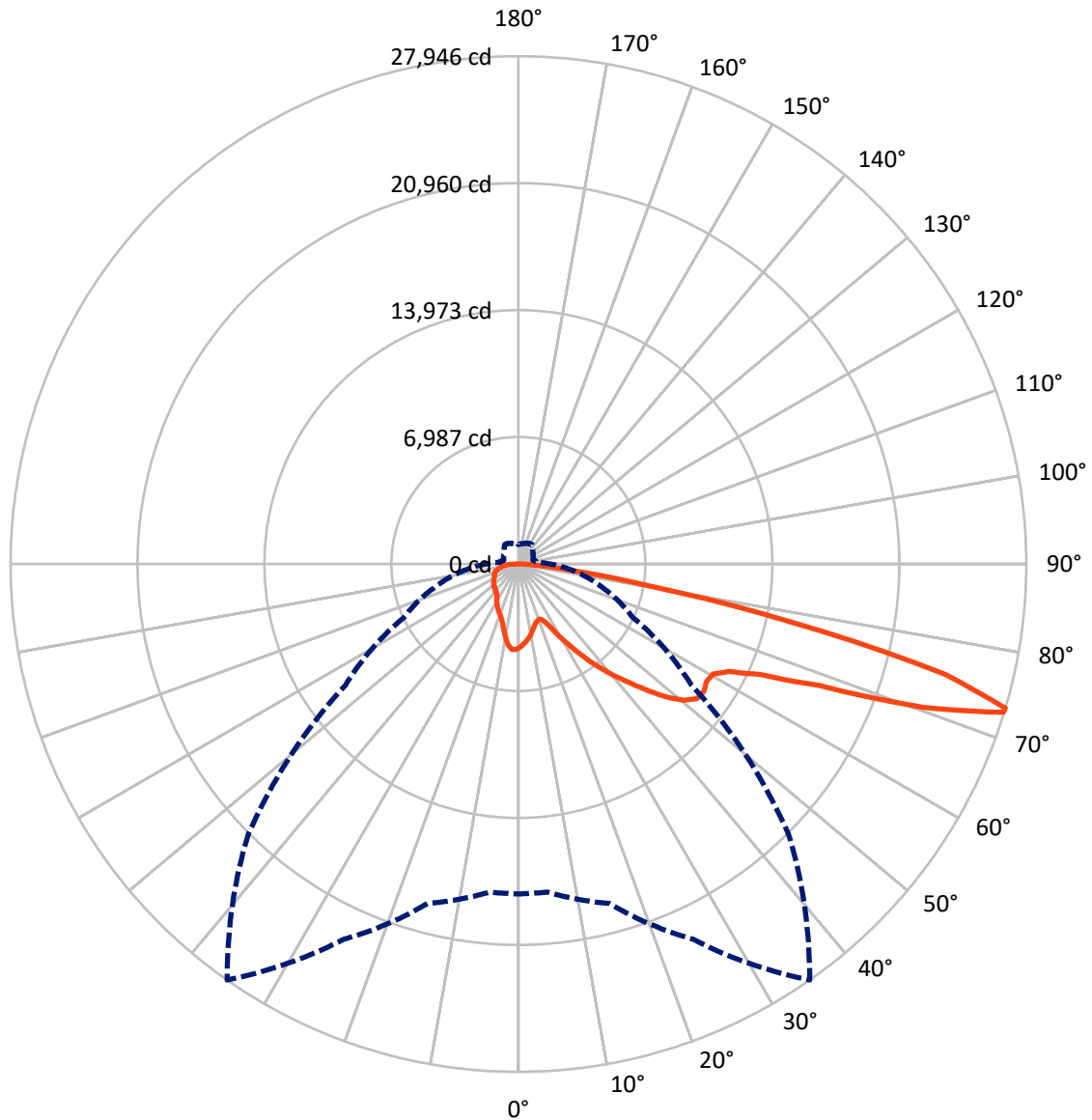
× Max cd
- - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.1 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	5824.3	0.0	5824.3
	% Fixture	19.1	0.0	19.1
Street Side	Lumens	24713.0	0.0	24713.0
	% Fixture	80.9	0.0	80.9
Total	Lumens	30537.3	0.0	30537.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	417.3	1.4
10°-20°	1041.4	3.4
20°-30°	1683.6	5.5
30°-40°	2823.1	9.2
40°-50°	4351.7	14.3
50°-60°	5838.2	19.1
60°-70°	7777.7	25.5
70°-80°	5932.0	19.4
80°-90°	672.4	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°	30537.3	100.0
0°-180°	30537.3	100.0



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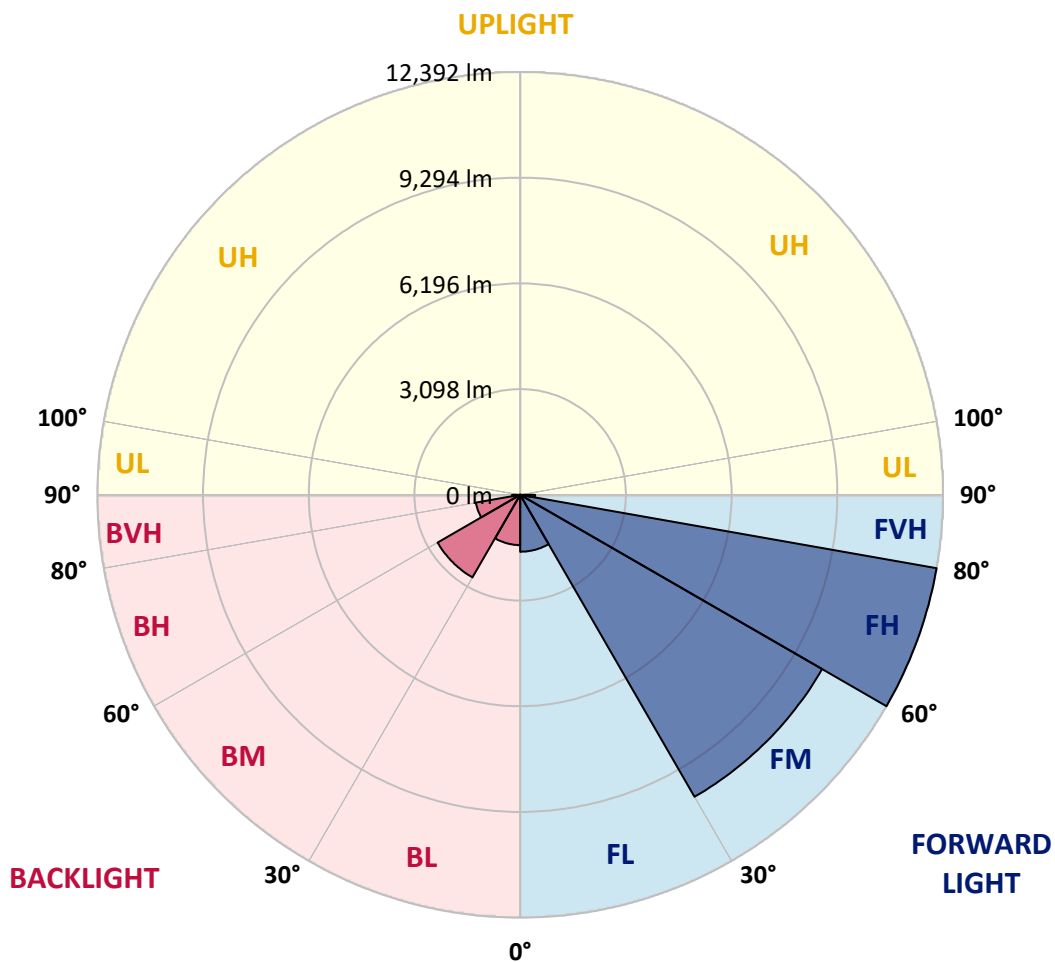
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1668.4	5.5			
FM	(30°-60°)	10218.0	33.5			
FH	(60°-80°)	12392.0	40.6			G5
FVH	(80°-90°)	434.6	1.4			G3/500
BL	(0°-30°)	1473.8	4.8	B3/2500		
BM	(30°-60°)	2795.0	9.2	B3/5000		
BH	(60°-80°)	1317.7	4.3	B3/2500		G3/2500
BVH	(80°-90°)	237.7	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°	4609.0	4609.0	4609.0	4609.0	4609.0	4609.0	4609.0	4609.0	4609.0	4609.0	4609.0
2.5°	4427.2	4436.0	4425.7	4438.9	4460.9	4484.4	4500.5	4524.0	4550.4	4587.0	4595.8
5°	4219.0	4232.1	4232.1	4255.6	4298.1	4336.3	4371.5	4409.6	4465.3	4528.4	4553.3
7.5°	3990.2	3997.5	4010.7	4045.9	4107.5	4161.8	4211.6	4273.2	4349.5	4433.1	4477.0
10°	3714.5	3724.8	3745.3	3795.1	3878.7	3953.5	4025.4	4110.4	4207.2	4311.3	4367.1
12.5°	3519.5	3516.5	3525.3	3562.0	3635.3	3726.2	3830.3	3938.9	4057.6	4179.4	4246.8
15°	3453.5	3437.3	3403.6	3394.8	3434.4	3525.3	3645.6	3779.0	3921.3	4067.9	4151.5
17.5°	3494.5	3466.7	3374.3	3306.8	3301.0	3369.9	3497.5	3647.0	3811.3	3990.2	4094.3
20°	3752.6	3686.6	3459.3	3302.4	3248.2	3281.9	3393.3	3551.7	3745.3	3982.9	4116.3
22.5°	4370.0	4273.2	3790.7	3498.9	3315.6	3274.6	3358.1	3526.8	3752.6	4073.8	4243.9
25°	5268.9	5131.1	4359.7	3988.7	3610.4	3391.9	3410.9	3584.0	3856.7	4284.9	4490.2
27.5°	5978.7	5889.2	5103.2	4679.4	4147.1	3708.6	3582.5	3727.7	4069.4	4631.0	4840.7
30°	6401.0	6346.8	5898.0	5462.5	4831.9	4213.1	3911.0	3997.5	4402.3	5110.5	5283.6
32.5°	6890.8	6858.5	6638.6	6238.2	5571.0	4875.9	4431.6	4400.8	4848.1	5686.9	5766.0
35°	7398.2	7387.9	7258.9	6971.5	6364.4	5749.9	5122.3	4914.0	5333.4	6285.2	6235.3
37.5°	7870.4	7852.8	7778.0	7610.8	7194.4	6688.4	5826.2	5440.5	5857.0	6857.1	6635.6
40°	8740.0	8602.1	8345.5	8219.4	8033.2	7478.8	6384.9	5931.8	6399.5	7402.6	6981.7
42.5°	9800.2	9575.9	9097.8	8924.8	8898.4	8102.1	6766.2	6408.3	6946.5	7943.7	7321.9
45°	10634.6	10423.5	10011.4	9792.9	9889.7	8666.7	7148.9	6917.2	7509.6	8511.2	7672.4
47.5°	11524.8	11193.3	10647.8	10713.8	10925.0	9200.5	7539.0	7464.2	8127.0	9146.2	8108.0
50°	11557.0	11303.3	11064.3	11458.8	11787.3	9691.7	8027.3	8037.6	8882.2	9945.4	8687.2
52.5°	10886.9	10832.6	11212.4	11832.7	12306.4	10080.3	8583.1	8630.0	9848.6	10863.4	9323.6
55°	10652.2	10590.6	11029.1	11702.2	12376.8	10401.5	9185.8	9270.8	11017.4	11831.2	9943.9
57.5°	11224.1	11087.8	11117.1	11640.6	12205.2	10753.4	9842.8	10014.3	12287.3	12677.4	10342.8
60°	12822.6	12530.7	11976.4	11963.2	12297.6	11281.3	10602.4	10812.1	13607.1	13082.1	10187.4
62.5°	15064.7	14772.9	13734.7	13058.7	13008.8	12152.4	11535.0	11590.7	14369.7	12533.7	9238.6
65°	17491.7	17230.7	16070.7	15116.1	14655.6	13595.4	12618.7	11938.3	14120.4	11024.7	7578.6
67.5°	20437.8	20157.7	19160.5	18279.2	17836.3	15924.1	13379.8	11605.4	12538.1	8540.6	5447.8
70°	22498.1	22212.2	21819.2	22533.3	23617.0	19283.7	13478.1	10251.9	9364.7	5676.6	3279.0
72.5°	19810.2	19676.7	20393.8	23401.5	27915.2	21322.1	12183.2	7464.2	5439.0	3013.5	1897.6
73°	18150.1	18120.8	19343.8	22792.9	27946.0	21008.2	11615.7	6937.7	4664.7	2666.0	1734.8
75°	8195.9	8432.0	11112.7	17409.6	24279.9	17311.3	8175.4	3979.9	2635.2	1841.8	1309.5
77.5°	1969.4	2051.6	3476.9	8267.8	15333.1	10316.4	3704.2	1968.0	1684.9	1300.7	956.1
80°	838.8	866.7	1338.9	3054.6	7219.3	4154.4	1706.9	1318.3	1165.8	907.7	670.2
82.5°	466.3	495.7	759.6	1385.8	2913.8	1416.6	1041.2	918.0	766.9	547.0	435.5
85°	264.0	280.1	444.3	774.3	1234.7	569.0	623.2	610.0	432.6	281.6	214.1
87.5°	124.6	134.9	214.1	359.3	483.9	222.9	316.8	349.0	271.3	171.6	111.4
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°	4609.0	4609.0	4609.0	4609.0	4609.0	4609.0	4609.0	4609.0	4609.0	4609.0
2.5°	4606.1	4632.5	4663.3	4679.4	4694.1	4711.7	4729.3	4729.3	4732.2	4733.7
5°	4573.8	4628.1	4676.5	4697.0	4701.4	4701.4	4697.0	4673.5	4653.0	4661.8
7.5°	4506.4	4585.6	4626.6	4619.3	4563.6	4499.0	4444.8	4378.8	4345.1	4339.2
10°	4409.6	4500.5	4507.8	4434.5	4296.7	4158.8	4044.4	3933.0	3880.2	3867.0
12.5°	4302.5	4386.1	4339.2	4188.2	3966.7	3765.8	3620.6	3507.7	3457.9	3444.7
15°	4216.0	4273.2	4154.4	3916.9	3638.2	3425.6	3305.4	3221.8	3186.6	3176.3
17.5°	4170.6	4182.3	3965.3	3644.1	3347.9	3170.4	3095.7	3056.1	3042.9	3035.5
20°	4192.6	4110.4	3784.9	3390.4	3110.3	2985.7	2968.1	2957.8	2954.9	2950.5
22.5°	4302.5	4088.4	3619.2	3149.9	2902.1	2847.8	2862.5	2861.0	2858.1	2855.2
25°	4499.0	4107.5	3457.9	2921.2	2727.6	2715.8	2742.2	2742.2	2730.5	2730.5
27.5°	4758.6	4147.1	3277.5	2704.1	2569.2	2570.7	2591.2	2585.3	2572.1	2563.3
30°	5075.4	4172.0	3066.3	2509.1	2421.1	2415.2	2421.1	2396.2	2356.6	2353.6
32.5°	5399.4	4141.2	2821.4	2336.0	2264.2	2251.0	2246.6	2211.4	2165.9	2152.7
35°	5692.7	4028.3	2572.1	2198.2	2114.6	2085.3	2105.8	2094.1	2053.0	2042.8
37.5°	5906.8	3818.6	2347.8	2076.5	2007.6	2000.2	2013.4	2017.8	1969.4	1959.2
40°	6050.5	3534.1	2155.7	1973.8	1987.0	1959.2	1915.2	1884.4	1869.7	1865.3
42.5°	6166.4	3237.9	1994.4	1925.4	1991.4	1910.8	1815.5	1765.6	1792.0	1803.7
45°	6299.8	2949.0	1859.4	1865.3	1969.4	1855.0	1746.5	1698.1	1708.4	1711.3
47.5°	6483.1	2597.1	1714.3	1768.5	1896.1	1816.9	1704.0	1635.1	1586.7	1564.7
50°	6736.8	2180.6	1563.2	1660.0	1824.3	1789.1	1638.0	1564.7	1475.2	1454.7
52.5°	6912.8	1792.0	1438.6	1569.1	1759.7	1733.3	1585.2	1489.9	1396.1	1378.5
55°	6817.5	1488.4	1330.1	1467.9	1674.7	1664.4	1541.2	1413.6	1340.3	1325.7
57.5°	6340.9	1296.3	1246.5	1372.6	1570.6	1605.8	1482.6	1349.1	1296.3	1286.1
60°	5431.7	1176.1	1193.7	1308.1	1485.5	1547.1	1423.9	1313.9	1278.7	1271.4
62.5°	4214.6	1095.4	1154.1	1261.1	1419.5	1506.0	1391.7	1309.5	1296.3	1287.5
65°	3019.4	1030.9	1111.6	1214.2	1359.4	1467.9	1379.9	1303.7	1306.6	1299.3
67.5°	2051.6	973.7	1060.2	1161.4	1300.7	1434.2	1363.8	1283.1	1319.8	1311.0
70°	1435.6	918.0	1000.1	1094.0	1227.4	1387.3	1334.5	1252.3	1249.4	1214.2
72.5°	1120.4	844.7	918.0	1000.1	1133.6	1321.3	1275.8	1183.4	1135.0	1098.4
73°	1069.0	827.1	897.5	979.6	1113.0	1305.1	1259.7	1164.4	1110.1	1076.4
75°	884.3	750.8	815.3	888.7	1025.0	1228.9	1180.5	1077.8	1008.9	988.4
77.5°	695.1	642.3	703.9	769.9	903.3	1117.4	1063.2	964.9	926.8	909.2
80°	514.7	532.3	586.6	645.2	783.1	998.6	950.3	852.0	1022.1	979.6
82.5°	362.2	403.3	453.1	505.9	657.0	882.8	824.1	723.0	747.9	621.8
85°	214.1	264.0	310.9	356.3	473.7	731.8	680.4	576.3	472.2	450.2
87.5°	124.6	146.6	159.8	206.8	325.5	551.4	479.5	426.7	244.9	165.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)