

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: P298879

Luminaire Tested: **GLNA-AF-05-LED-E1-T2-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298879
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24139)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-05-LED-E1-T2-7027
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25278.5 lumens
Efficiency: N/A
Efficacy: 90.6 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B3 - U0 - G4

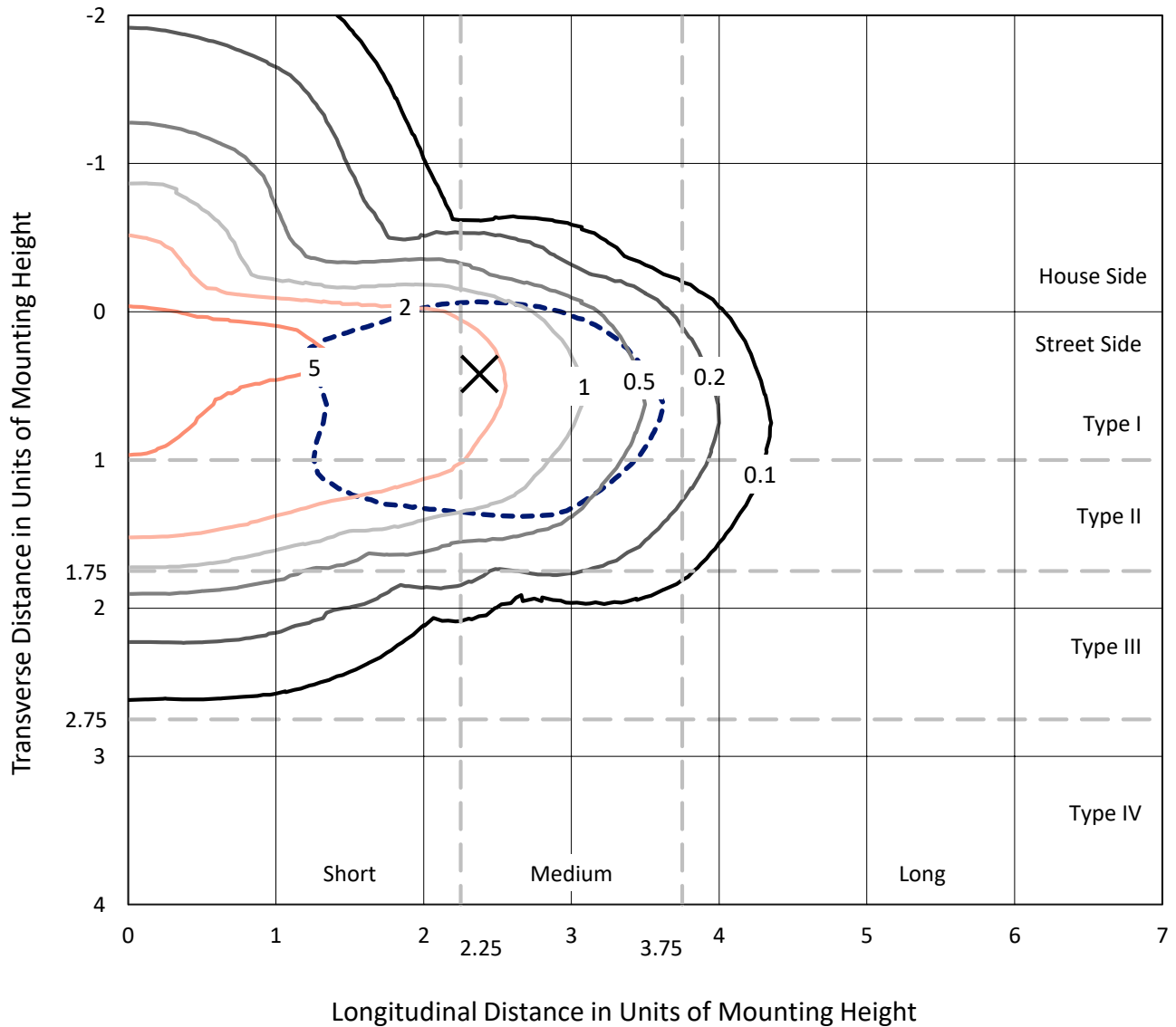
Input Watts (W): 279
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P298879
 CATALOG NUMBER: GLNA-AF-05-LED-E1-T2-7027

Iso-Footcandle Lines of Horizontal Illumination

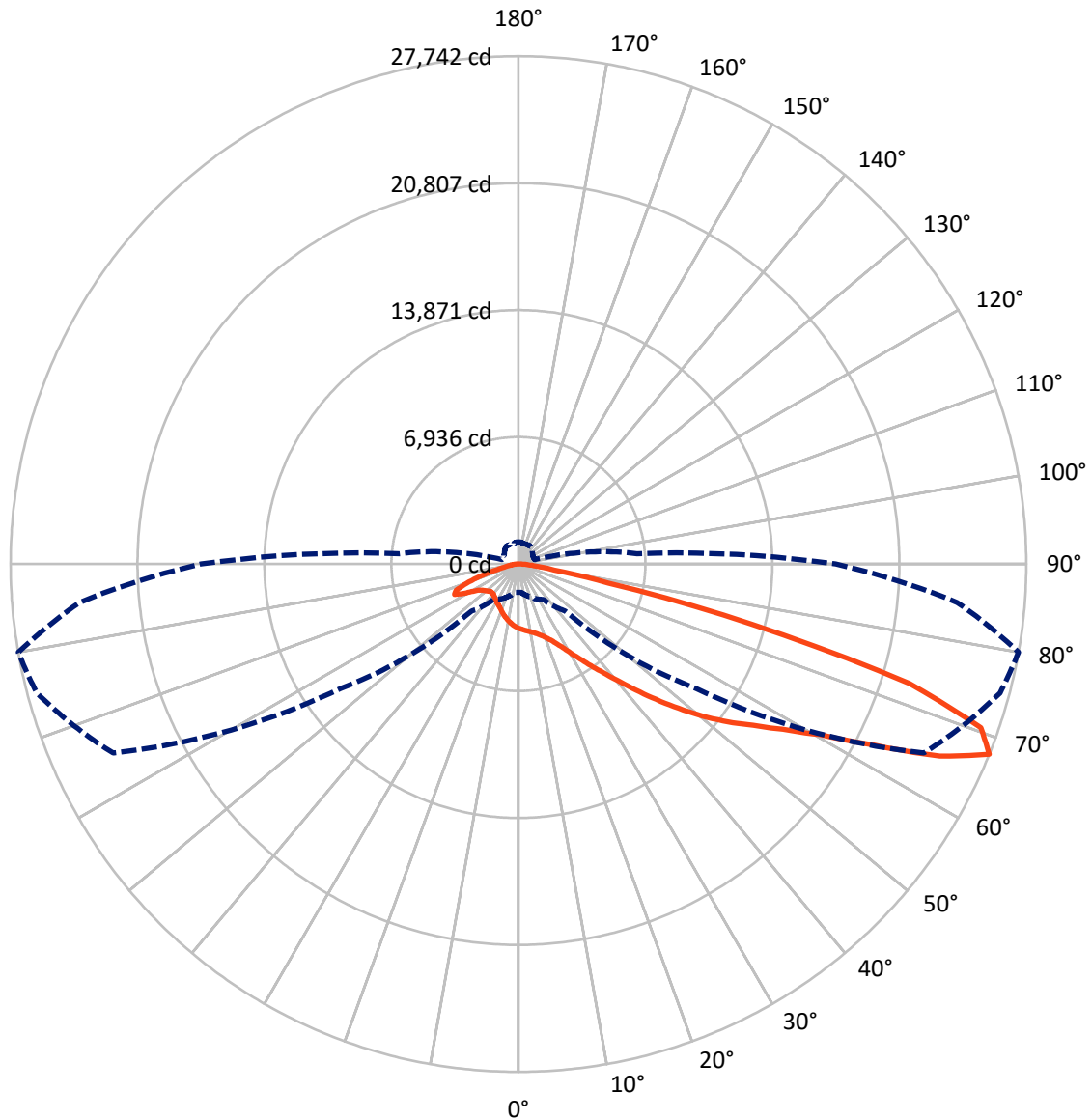
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.8 fc
 Type II - Medium - Full Cutoff

REPORT NUMBER: P298879
CATALOG NUMBER: GLNA-AF-05-LED-E1-T2-7027

Luminous Intensity Polar Plot



— Vertical Plane Through 80-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P298879

CATALOG NUMBER: GLNA-AF-05-LED-E1-T2-7027

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4655.3	0.0	4655.3
	% Fixture	18.4	0.0	18.4
Street Side	Lumens	20623.2	0.0	20623.2
	% Fixture	81.6	0.0	81.6
Total	Lumens	25278.5	0.0	25278.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	324.0	1.3
10°-20°	933.2	3.7
20°-30°	1544.7	6.1
30°-40°	2526.7	10.0
40°-50°	4079.7	16.1
50°-60°	5889.9	23.3
60°-70°	6499.8	25.7
70°-80°	2996.0	11.9
80°-90°	484.6	1.9
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°	25278.5	100.0
0°-180°	25278.5	100.0



REPORT NUMBER: P298879

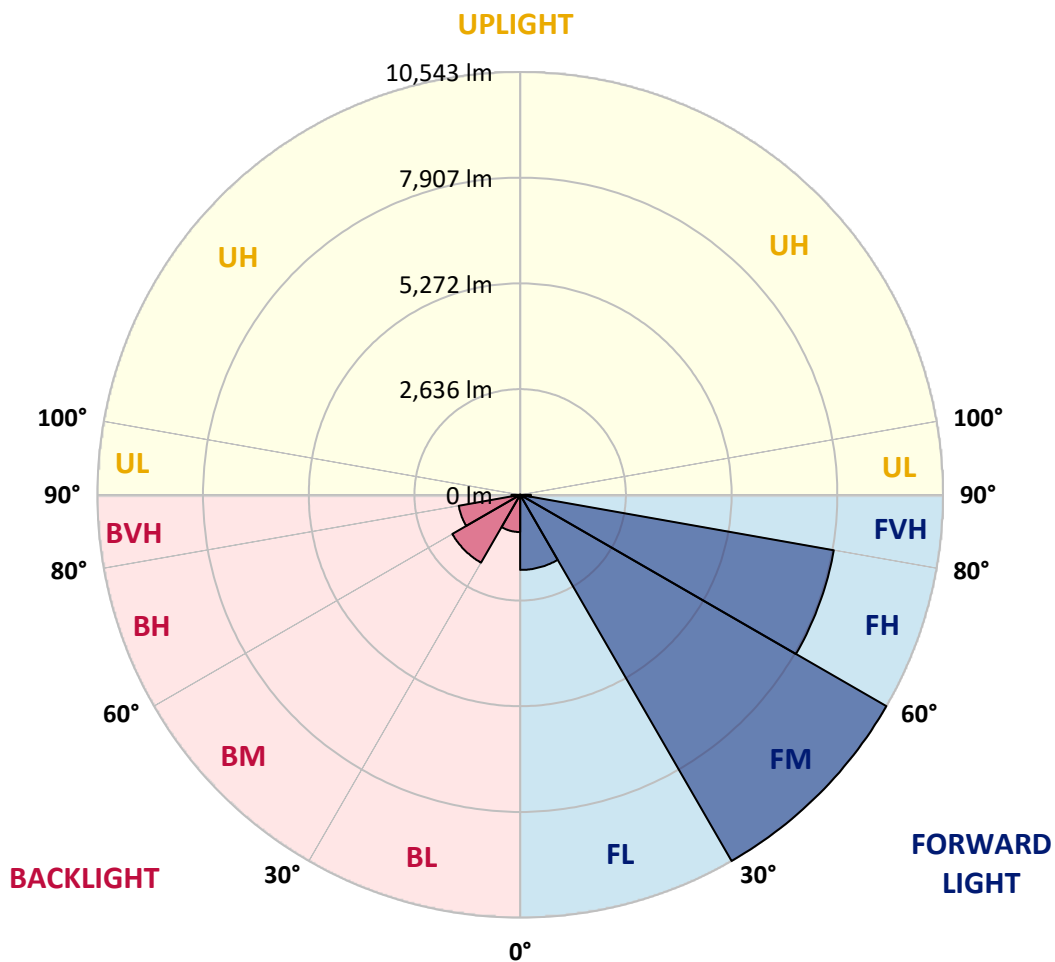
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1873.1	7.4			
FM (30°-60°)	10543.0	41.7			
FH (60°-80°)	7940.6	31.4			G4/12000
FVH (80°-90°)	266.4	1.1			G3/500
BL (0°-30°)	928.8	3.7	B2/1000		
BM (30°-60°)	1953.2	7.7	B2/2500		
BH (60°-80°)	1555.2	6.2	B3/2500		G3/2500
BVH (80°-90°)	218.2	0.9			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 II Medium





REPORT NUMBER: P298879

CATALOG NUMBER: GLNA-AF-05-LED-E1-T2-7027

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	80°	85°
0°	3511.9	3511.9	3511.9	3511.9	3511.9	3511.9	3511.9	3511.9	3511.9	3511.9	3511.9
2.5°	3841.7	3819.3	3823.0	3816.8	3798.2	3765.8	3731.0	3667.5	3601.5	3566.7	3539.3
5°	4162.8	4156.6	4147.9	4127.9	4080.7	4013.5	3930.1	3818.1	3697.4	3633.9	3572.9
7.5°	4403.0	4399.2	4388.0	4375.6	4329.5	4248.7	4123.0	3963.7	3788.2	3701.1	3606.5
10°	4422.9	4429.1	4437.8	4471.4	4477.6	4434.1	4305.9	4113.0	3882.8	3770.8	3650.1
12.5°	4253.6	4267.3	4300.9	4386.8	4477.6	4531.2	4465.2	4269.8	3993.5	3857.9	3704.8
15°	4029.6	4037.1	4078.2	4196.4	4359.4	4524.9	4587.2	4442.8	4136.7	3969.9	3787.0
17.5°	3933.8	3937.5	3966.2	4044.6	4196.4	4432.8	4655.6	4630.7	4312.1	4109.3	3887.8
20°	3885.3	3894.0	3935.0	4012.2	4108.0	4314.6	4665.6	4833.6	4521.2	4283.5	4014.7
22.5°	4023.4	4019.7	4034.6	4073.2	4154.1	4278.5	4658.1	5042.6	4787.5	4507.5	4180.2
25°	4345.7	4359.4	4333.3	4289.7	4315.9	4403.0	4697.9	5269.1	5121.0	4795.0	4396.8
27.5°	4804.9	4791.3	4752.7	4650.6	4597.1	4634.4	4829.8	5513.0	5535.5	5173.3	4683.0
30°	5262.9	5251.7	5214.4	5089.9	4980.4	4949.3	5086.2	5793.1	6029.5	5627.5	5033.9
32.5°	5738.3	5725.9	5691.0	5566.6	5434.6	5362.5	5450.8	6116.6	6611.9	6170.1	5447.1
35°	6324.5	6300.8	6227.4	6054.4	5925.0	5869.0	5910.0	6523.6	7283.9	6812.3	5948.6
37.5°	6875.8	6911.8	6837.2	6598.2	6430.2	6410.3	6456.4	7020.1	8008.2	7530.4	6524.8
40°	7429.5	7435.8	7368.6	7173.2	7000.2	6967.8	7083.6	7622.4	8863.2	8389.0	7225.5
42.5°	8002.0	8014.5	7901.2	7720.8	7593.8	7600.0	7732.0	8328.1	9843.8	9400.8	8031.9
45°	8680.3	8698.9	8574.5	8338.0	8222.3	8455.0	8400.2	9119.6	10919.1	10550.7	8957.8
47.5°	9389.6	9418.2	9323.6	9102.1	8957.8	9277.6	9068.5	9996.9	12076.4	11784.0	9974.5
50°	9776.6	9817.7	9909.8	9893.6	9862.5	9809.0	9814.0	10937.7	13269.9	13068.3	11019.9
52.5°	9568.8	9567.6	9903.6	10311.8	10747.3	10779.7	10722.4	11929.6	14385.0	14324.0	12004.3
55°	8618.0	8682.7	9191.7	9982.0	11171.7	11914.7	12083.9	13065.8	15480.1	15551.0	13003.6
57.5°	7035.0	7088.6	7775.5	8876.9	10599.2	12589.2	14020.3	14717.2	16704.7	17035.7	14333.9
60°	4771.3	4836.1	5564.1	6887.0	9058.6	12213.3	15863.4	17664.2	18170.7	18923.6	16200.6
62.5°	2803.8	2862.3	3455.9	4344.5	6378.0	10467.3	16672.3	21856.8	20499.1	21772.2	19048.0
65°	1930.2	1970.0	2258.7	2704.3	3665.0	7050.0	15669.3	24751.5	24081.9	25301.5	22349.6
67.5°	1553.1	1548.1	1777.1	2080.8	2359.5	3635.1	11848.7	24424.2	27233.0	27742.0	24063.3
70°	1279.3	1274.3	1429.9	1681.3	1885.4	2047.2	6453.9	20611.1	26590.8	26797.4	22485.3
72.5°	1070.3	1075.2	1174.8	1361.5	1546.9	1541.9	2836.2	14499.4	20918.5	22347.1	17924.3
75°	903.5	906.0	971.9	1103.9	1255.7	1242.0	1538.2	7855.2	12159.8	13154.2	9935.9
77.5°	769.1	771.6	813.9	887.3	995.6	990.6	1122.5	3393.7	5072.5	5010.3	3398.7
80°	685.7	685.7	705.6	719.3	779.0	756.6	832.6	1630.3	2144.2	1980.0	1356.5
82.5°	537.6	540.1	662.1	657.1	613.5	584.9	584.9	960.7	1136.2	1050.3	794.0
85°	302.4	301.2	426.9	515.2	540.1	411.9	408.2	537.6	618.5	545.1	384.5
87.5°	129.4	131.9	197.9	229.0	306.1	256.4	252.6	277.5	314.9	272.5	178.0
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°	3511.9	3511.9	3511.9	3511.9	3511.9	3511.9	3511.9	3511.9	3511.9	3511.9	3511.9
2.5°	3513.2	3480.8	3409.9	3321.5	3241.9	3189.6	3142.3	3073.9	3077.6	3030.3	2995.5
5°	3510.7	3443.5	3279.2	3083.8	2895.9	2760.3	2658.2	2566.1	2543.7	2500.2	2474.0
7.5°	3513.2	3403.7	3127.4	2815.0	2582.3	2410.6	2323.4	2274.9	2263.7	2248.8	2250.0
10°	3521.9	3367.6	2960.6	2563.6	2319.7	2206.5	2185.3	2200.2	2217.7	2222.6	2223.9
12.5°	3541.8	3335.2	2777.7	2339.6	2155.4	2120.6	2156.7	2207.7	2241.3	2257.5	2256.2
15°	3586.6	3310.3	2602.2	2164.2	2064.6	2083.3	2150.5	2222.6	2271.2	2293.6	2294.8
17.5°	3635.1	3274.2	2421.8	2029.7	1997.4	2044.7	2128.1	2212.7	2272.4	2297.3	2302.3
20°	3698.6	3229.4	2232.6	1928.9	1933.9	1987.4	2065.8	2150.5	2216.4	2237.6	2247.5
22.5°	3782.0	3180.9	2067.1	1846.8	1861.7	1902.8	1963.8	2037.2	2094.5	2104.4	2113.1
25°	3894.0	3128.6	1935.2	1772.1	1778.4	1802.0	1843.1	1886.6	1926.5	1915.3	1924.0
27.5°	4044.6	3083.8	1836.9	1703.7	1692.5	1697.5	1718.6	1732.3	1753.5	1722.4	1726.1
30°	4221.3	3035.3	1760.9	1644.0	1612.8	1604.1	1609.1	1616.6	1632.8	1590.4	1584.2
32.5°	4426.6	2976.8	1690.0	1591.7	1548.1	1530.7	1533.2	1553.1	1615.3	1589.2	1575.5
35°	4665.6	2910.8	1615.3	1534.4	1504.6	1479.7	1477.2	1539.4	1724.9	1708.7	1696.2
37.5°	4945.6	2844.9	1540.7	1469.7	1472.2	1444.8	1436.1	1507.1	1746.0	1682.5	1673.8
40°	5301.5	2810.0	1477.2	1401.3	1432.4	1428.7	1411.2	1447.3	1606.6	1490.9	1476.0
42.5°	5742.0	2815.0	1429.9	1327.9	1385.1	1424.9	1397.6	1398.8	1456.0	1368.9	1355.2
45°	6285.9	2873.5	1396.3	1269.4	1331.6	1421.2	1392.6	1372.7	1377.6	1331.6	1324.1
47.5°	6920.6	2994.2	1372.7	1220.8	1280.6	1407.5	1391.3	1365.2	1354.0	1329.1	1322.9
50°	7626.2	3169.7	1355.2	1174.8	1234.5	1385.1	1392.6	1357.7	1345.3	1335.3	1331.6
52.5°	8319.4	3370.1	1329.1	1135.0	1198.4	1357.7	1396.3	1350.3	1336.6	1329.1	1325.4
55°	9092.2	3620.2	1289.3	1101.4	1168.6	1322.9	1396.3	1339.1	1324.1	1325.4	1324.1
57.5°	10136.3	4024.7	1242.0	1072.7	1132.5	1280.6	1372.7	1326.6	1307.9	1309.2	1310.4
60°	11767.8	4737.7	1184.7	1044.1	1087.7	1230.8	1340.3	1299.2	1280.6	1285.5	1286.8
62.5°	14167.2	5784.3	1110.1	1001.8	1040.4	1177.3	1295.5	1264.4	1245.7	1258.2	1258.2
65°	16661.1	6707.8	1018.0	948.3	990.6	1118.8	1239.5	1220.8	1202.2	1230.8	1229.5
67.5°	17331.9	6501.2	925.9	889.8	940.8	1054.1	1172.3	1162.3	1152.4	1202.2	1199.7
70°	15396.7	5219.4	841.3	830.1	886.1	984.4	1100.1	1100.1	1093.9	1131.2	1122.5
72.5°	11730.5	3701.1	760.4	766.6	823.8	908.5	1021.7	1030.4	1020.5	1039.1	1031.7
75°	6279.6	2118.1	679.5	696.9	746.7	831.3	934.6	943.3	937.1	935.8	939.6
77.5°	2087.0	1035.4	594.9	622.2	665.8	751.7	843.8	857.4	842.5	840.0	838.8
80°	929.6	650.9	501.5	537.6	576.2	660.8	747.9	759.1	743.0	765.4	736.7
82.5°	597.4	428.1	402.0	441.8	479.1	570.0	652.1	654.6	639.7	743.0	633.4
85°	290.0	265.1	302.4	338.5	370.9	448.0	540.1	541.3	504.0	459.2	443.0
87.5°	144.4	154.3	201.6	234.0	250.1	307.4	393.3	385.8	369.6	336.0	309.9
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)