

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: P301806

Luminaire Tested: **GLNA-AF-02-LED-E1-SL4-7027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301806
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24301)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-02-LED-E1-SL4-7027-HSS
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
w/Spill Control WITH HOUSESIDE SHEILD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7802.7 lumens
Efficiency: N/A
Efficacy: 69.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 113
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

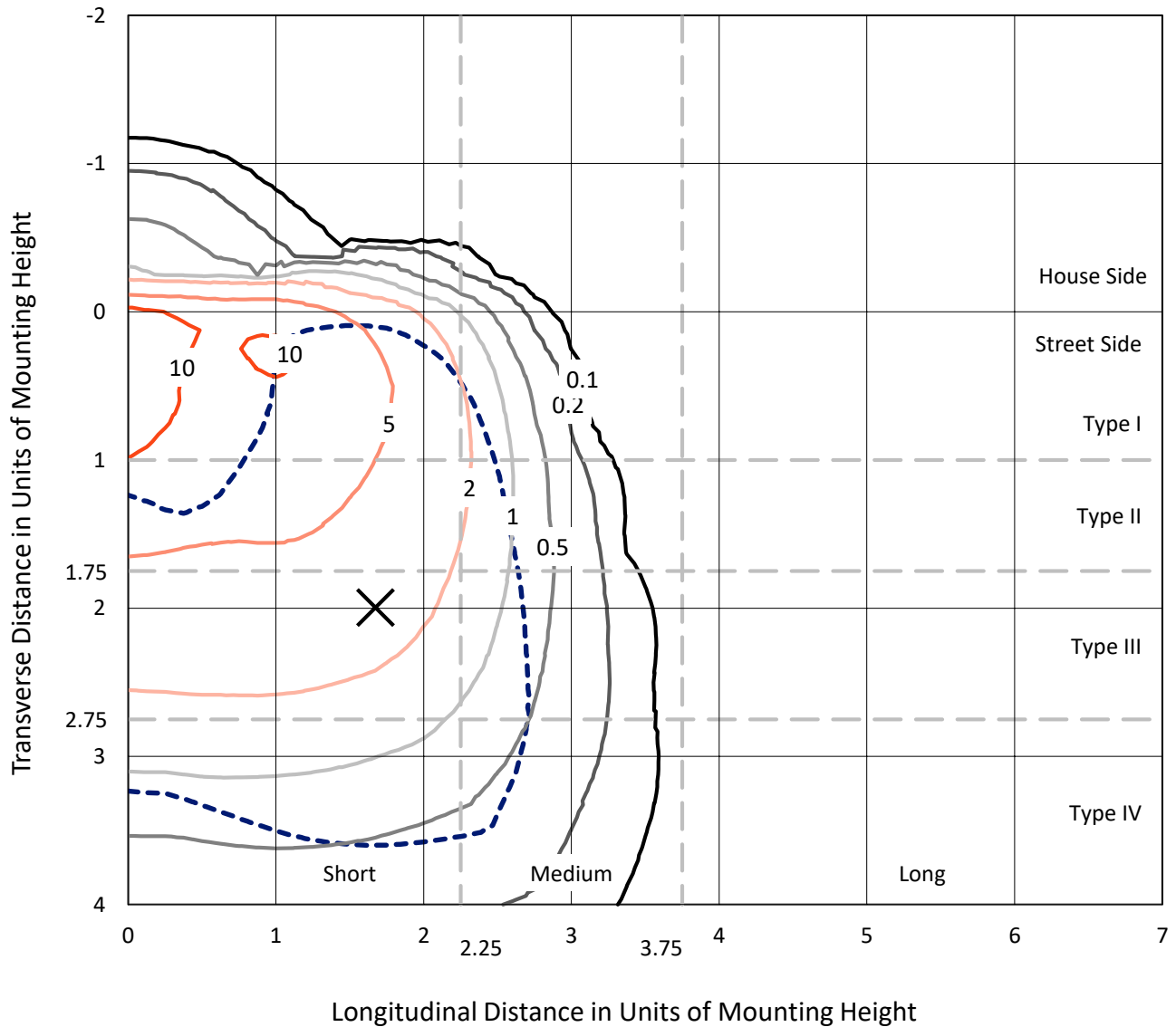


REPORT NUMBER: P301806

CATALOG NUMBER: GLNA-AF-02-LED-E1-SL4-7027-HSS

Iso-Footcandle Lines of Horizontal Illumination

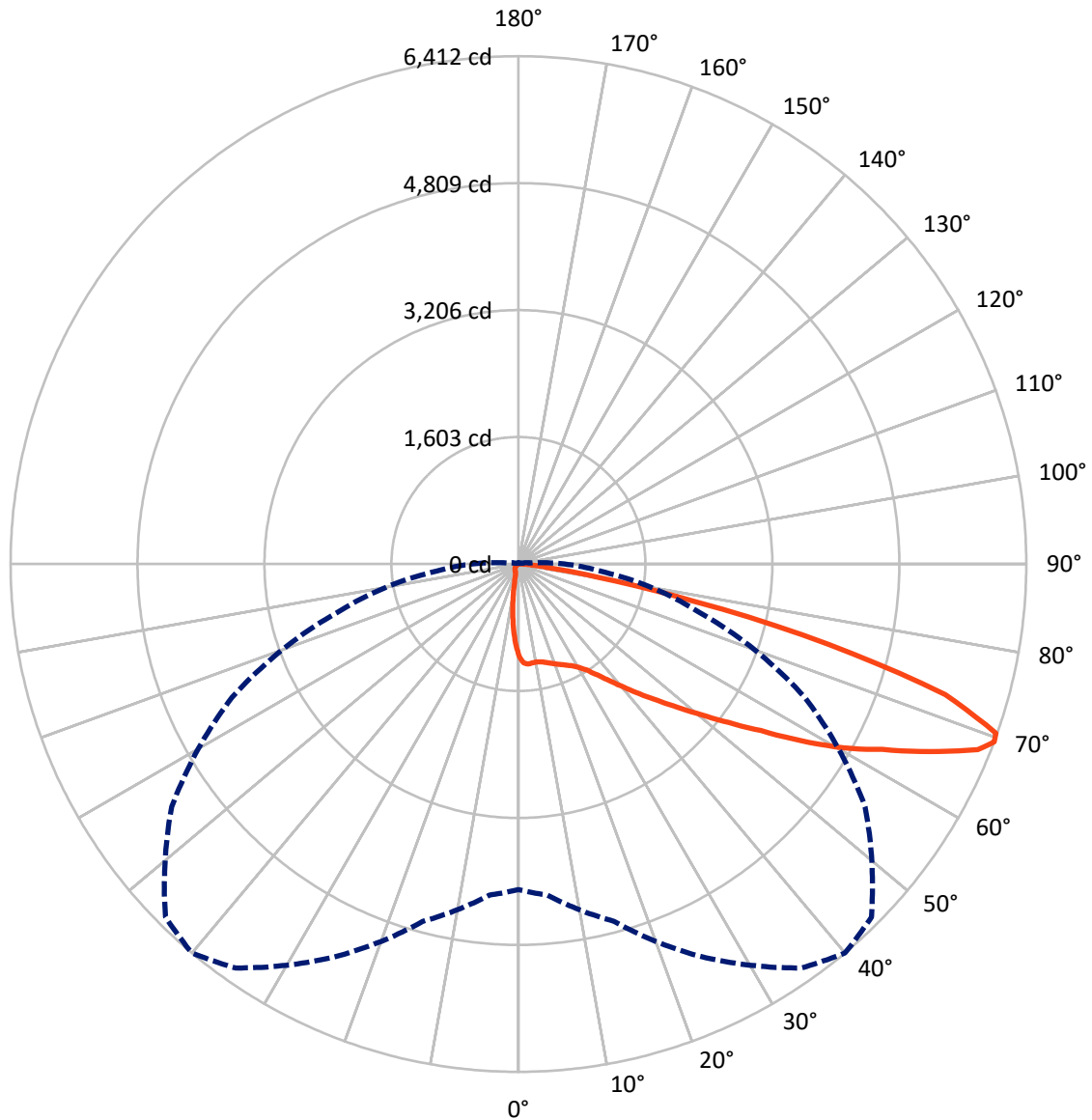
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12.8 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P301806
CATALOG NUMBER: GLNA-AF-02-LED-E1-SL4-7027-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

REPORT NUMBER: P301806

CATALOG NUMBER: GLNA-AF-02-LED-E1-SL4-7027-HSS

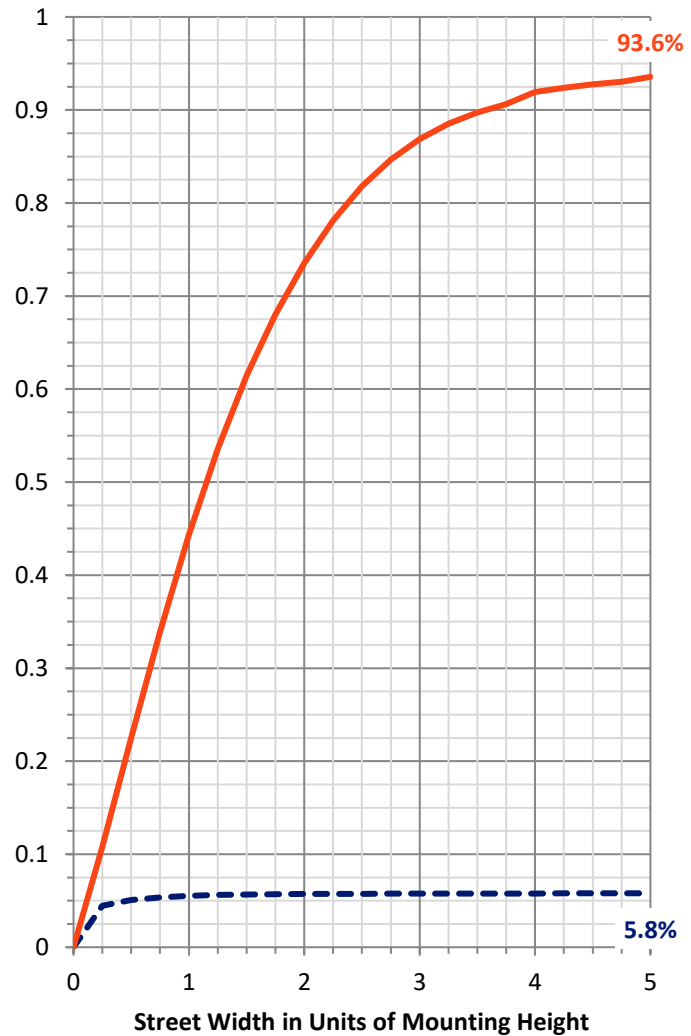
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	456.5	0.0	456.5
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	7346.2	0.0	7346.2
	% Fixture	94.1	0.0	94.1
Total	Lumens	7802.7	0.0	7802.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.5	1.2
10°-20°	232.4	3.0
20°-30°	391.5	5.0
30°-40°	640.9	8.2
40°-50°	1109.7	14.2
50°-60°	1747.9	22.4
60°-70°	2282.7	29.3
70°-80°	1175.7	15.1
80°-90°	127.2	1.6
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°	7802.7	100.0
0°-180°	7802.7	100.0



--- HS — SS

REPORT NUMBER: P301806

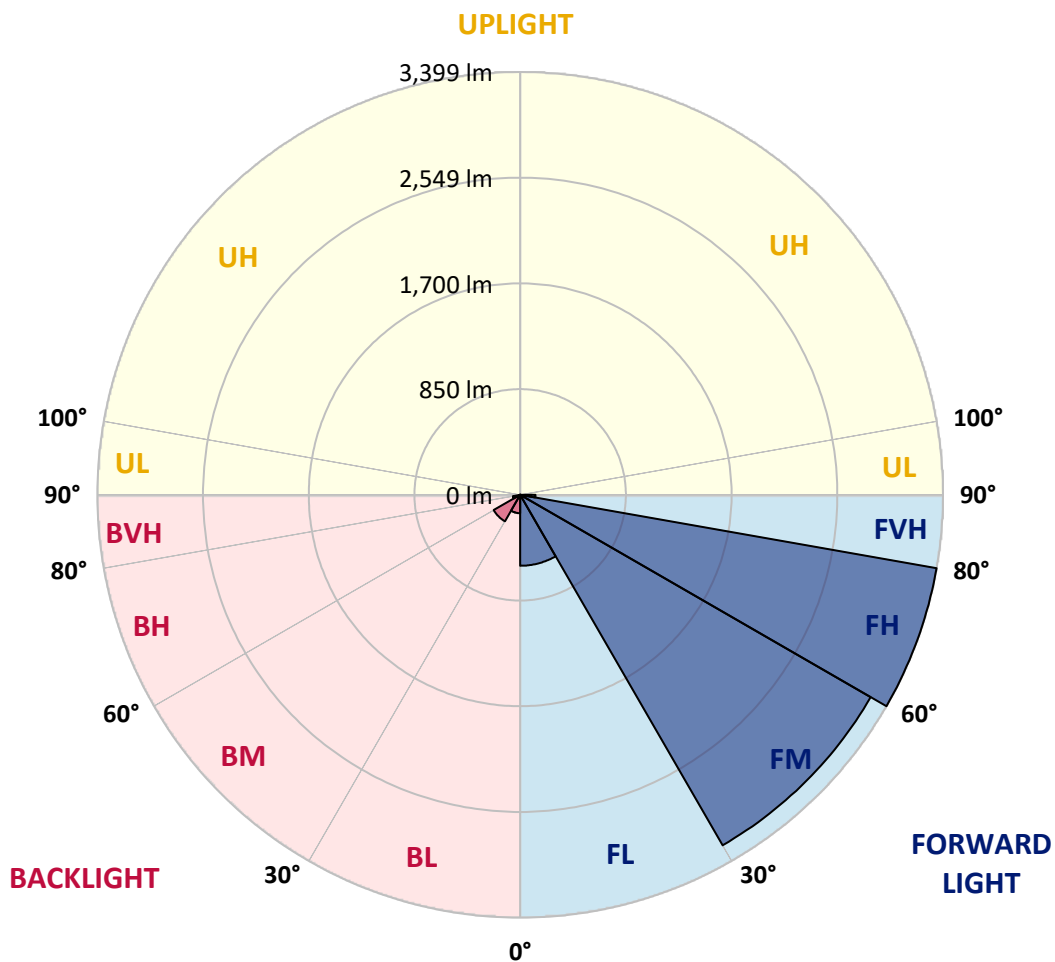
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	570.6	7.3			
FM	(30°-60°)	3253.2	41.7			
FH	(60°-80°)	3399.2	43.6			G2/5000
FVH	(80°-90°)	123.2	1.6			G2/225
BL	(0°-30°)	147.9	1.9	B1/500		
BM	(30°-60°)	245.4	3.1	B1/1000		
BH	(60°-80°)	59.3	0.8	B0/110		G0/110
BVH	(80°-90°)	4.0	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Short





REPORT NUMBER: P301806

CATALOG NUMBER: GLNA-AF-02-LED-E1-SL4-7027-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	1165.8	1165.8	1165.8	1165.8	1165.8	1165.8	1165.8	1165.8	1165.8	1165.8	1165.8
2.5°	1280.0	1273.0	1268.9	1263.3	1256.3	1250.3	1248.0	1230.8	1214.5	1192.2	1166.7
5°	1303.7	1301.4	1293.9	1286.5	1278.2	1268.9	1263.8	1243.3	1220.1	1187.6	1143.0
7.5°	1306.0	1303.2	1293.9	1283.7	1272.1	1261.0	1252.1	1231.7	1210.3	1177.4	1123.0
10°	1302.3	1299.1	1292.1	1280.9	1266.5	1255.9	1247.0	1227.5	1209.4	1179.7	1119.3
12.5°	1298.1	1294.9	1291.6	1286.1	1273.5	1266.1	1258.7	1240.1	1223.8	1198.7	1132.8
15°	1302.3	1300.5	1304.2	1301.8	1294.9	1288.4	1280.9	1264.2	1249.4	1228.5	1157.4
17.5°	1320.0	1320.0	1331.6	1333.0	1326.5	1317.2	1306.5	1289.8	1277.2	1259.6	1186.7
20°	1361.3	1359.9	1374.8	1377.5	1361.8	1347.4	1331.6	1311.1	1301.4	1290.2	1215.5
22.5°	1432.4	1425.9	1434.7	1431.9	1400.8	1378.5	1359.0	1333.9	1328.8	1323.7	1247.5
25°	1524.8	1521.1	1527.1	1499.7	1444.9	1414.7	1391.5	1363.2	1363.2	1368.3	1283.7
27.5°	1659.0	1645.1	1624.6	1576.3	1494.1	1455.6	1430.5	1400.3	1408.2	1427.2	1331.6
30°	1796.5	1781.2	1734.2	1659.9	1554.0	1513.6	1484.4	1452.8	1471.4	1506.2	1395.7
32.5°	1932.1	1914.9	1848.5	1754.7	1640.0	1599.6	1571.2	1536.4	1567.5	1626.0	1489.5
35°	2063.5	2048.2	1971.6	1861.0	1754.2	1720.8	1694.8	1664.6	1704.5	1786.3	1621.8
37.5°	2211.2	2194.5	2101.2	1981.3	1893.1	1868.9	1849.9	1819.7	1889.4	2009.2	1806.2
40°	2392.8	2364.5	2238.6	2119.3	2053.8	2042.2	2029.2	2025.0	2133.2	2299.0	2051.9
42.5°	2600.9	2554.5	2382.6	2264.6	2230.3	2238.6	2235.4	2254.0	2438.3	2659.4	2351.0
45°	2809.0	2749.1	2542.8	2419.8	2424.4	2453.7	2471.8	2546.1	2820.6	3072.8	2672.9
47.5°	2985.5	2926.5	2696.6	2587.4	2643.2	2700.8	2750.0	2890.7	3213.5	3479.6	2923.2
50°	3136.4	3080.7	2859.6	2771.8	2897.2	2990.1	3070.0	3278.5	3636.2	3789.4	3098.8
52.5°	3260.0	3222.8	3028.7	2983.1	3187.5	3323.6	3440.6	3690.5	4010.5	4041.2	3235.3
55°	3380.2	3353.8	3210.3	3234.4	3528.4	3713.7	3861.9	4127.5	4332.8	4251.1	3366.3
57.5°	3518.6	3494.5	3417.4	3553.0	3976.6	4209.7	4371.4	4514.9	4616.6	4465.7	3489.9
60°	3659.8	3645.9	3647.8	3906.9	4491.2	4715.1	4804.2	4841.4	4895.3	4667.7	3496.8
62.5°	3794.5	3821.0	3911.1	4300.8	4984.0	5155.8	5200.9	5237.6	5174.4	4699.7	3230.7
65°	4022.6	4065.8	4280.8	4827.9	5526.0	5709.9	5756.4	5630.5	5218.5	4285.5	2627.8
67.5°	4134.0	4213.0	4596.6	5319.3	6051.7	6256.1	6238.9	5656.0	4683.0	3267.8	1686.4
69°	4110.8	4194.9	4669.5	5469.8	6226.4	6411.7	6302.5	5343.5	3989.6	2367.3	1035.3
70°	4018.9	4103.9	4631.9	5464.2	6248.7	6395.4	6184.6	4957.5	3373.3	1731.0	647.4
72.5°	3356.1	3429.5	4112.2	4938.9	5756.4	5637.0	5173.9	3434.6	1643.7	471.4	145.8
75°	2065.9	2106.7	2950.6	3720.7	4347.7	4041.2	3447.1	1708.7	490.0	133.3	80.8
77.5°	1091.4	1110.0	1615.3	2193.1	2756.0	2280.4	1766.8	666.5	225.7	83.6	58.5
80°	645.1	659.0	869.9	1002.7	1192.7	996.2	706.4	409.2	161.6	52.5	52.0
82.5°	369.2	378.1	630.7	557.3	470.0	401.3	351.6	387.8	97.1	35.3	53.9
85°	135.6	137.5	354.8	424.0	279.6	166.3	174.6	321.4	26.0	22.3	42.3
87.5°	63.2	61.8	182.5	259.6	163.5	105.4	136.1	70.6	10.2	14.4	11.6
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: P301806

CATALOG NUMBER: GLNA-AF-02-LED-E1-SL4-7027-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1165.8	1165.8	1165.8	1165.8	1165.8	1165.8	1165.8	1165.8	1165.8	1165.8	1165.8
2.5°	1151.8	1134.6	1103.5	1071.5	1039.0	1013.9	989.3	969.8	963.3	951.2	952.1
5°	1116.5	1084.9	1019.9	954.0	885.2	828.6	775.2	732.0	711.1	689.7	689.7
7.5°	1085.9	1039.9	938.2	830.9	719.9	626.5	542.5	479.3	444.5	416.6	416.1
10°	1074.3	1012.0	869.9	716.2	561.5	434.3	334.4	270.3	237.3	216.0	215.0
12.5°	1079.4	1002.3	817.4	610.3	416.1	279.1	193.7	152.3	138.4	131.9	131.9
15°	1094.2	999.5	764.9	506.7	294.0	174.6	128.7	117.5	116.6	116.6	116.6
17.5°	1112.4	1000.4	711.1	405.9	200.2	124.9	111.0	109.6	110.5	110.5	110.5
20°	1130.9	1000.9	653.0	312.6	141.2	108.7	104.5	104.0	105.0	105.0	105.4
22.5°	1153.7	1003.2	595.0	233.6	116.6	102.6	99.4	99.4	99.9	99.9	99.4
25°	1179.7	1007.8	534.6	173.2	106.4	98.5	95.7	95.2	95.7	95.2	94.7
27.5°	1212.2	1014.4	467.2	135.6	101.7	94.3	92.0	92.0	91.5	91.0	90.6
30°	1253.1	1021.8	391.5	115.2	97.1	90.6	88.2	87.8	87.3	86.4	86.4
32.5°	1315.3	1038.0	316.8	104.5	92.0	85.5	83.6	83.6	82.7	81.7	81.3
35°	1411.0	1070.1	249.9	98.0	86.4	79.9	77.6	77.6	76.6	76.2	75.7
37.5°	1543.4	1118.9	194.1	92.0	80.8	73.8	71.5	71.1	70.1	69.2	68.7
40°	1719.4	1179.2	152.8	86.4	75.2	67.8	66.0	65.0	63.2	61.8	61.8
42.5°	1940.5	1248.0	124.0	80.3	68.7	62.2	60.8	59.4	56.2	54.8	54.3
45°	2171.8	1309.7	105.0	73.4	62.2	56.7	55.7	53.4	49.2	47.8	47.8
47.5°	2338.5	1324.1	92.4	66.9	56.2	50.6	50.2	46.0	42.3	41.3	40.9
50°	2442.5	1295.8	82.2	60.4	50.6	45.1	43.7	38.5	36.2	35.3	34.8
52.5°	2512.7	1245.2	73.8	54.8	45.5	39.9	36.7	33.0	31.1	30.2	30.2
55°	2568.9	1173.7	65.5	49.7	41.3	35.8	31.1	28.3	26.5	25.5	25.5
57.5°	2584.6	1076.6	57.1	45.5	37.2	31.6	26.5	24.6	22.3	21.8	21.8
60°	2469.9	901.5	50.6	40.4	33.4	27.4	23.2	20.9	18.6	18.1	17.6
62.5°	2167.6	697.6	44.6	35.8	29.3	23.7	20.0	17.2	15.3	15.3	15.3
65°	1653.4	467.7	39.0	31.1	25.5	20.0	17.2	13.9	13.0	13.0	13.5
67.5°	989.7	254.5	33.4	26.5	21.8	16.7	14.4	12.1	11.6	12.1	12.1
69°	580.1	149.6	30.2	23.7	19.0	14.9	12.5	10.7	11.6	12.1	12.1
70°	358.1	100.8	27.9	21.4	17.2	13.5	11.6	10.2	11.1	11.6	11.6
72.5°	99.9	52.0	22.3	16.7	13.9	11.1	9.3	9.3	10.7	11.1	11.1
75°	65.0	38.5	17.2	12.5	10.7	8.8	7.9	8.8	10.2	10.7	10.7
77.5°	53.9	31.6	13.9	10.2	8.8	8.4	7.4	7.9	9.3	9.8	9.8
80°	49.2	22.3	11.1	9.3	7.9	7.4	7.0	6.5	8.4	8.8	8.8
82.5°	46.9	17.6	9.8	8.4	7.4	6.5	6.0	6.5	7.4	7.9	8.4
85°	29.3	11.6	8.8	7.9	6.5	6.0	6.0	6.0	7.0	7.4	7.4
87.5°	10.7	9.3	7.9	6.5	5.6	5.6	5.6	5.6	6.0	7.0	7.0
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)