

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: P300846

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300846
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
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Square Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10019.1 lumens
Efficiency: N/A
Efficacy: 88.7 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

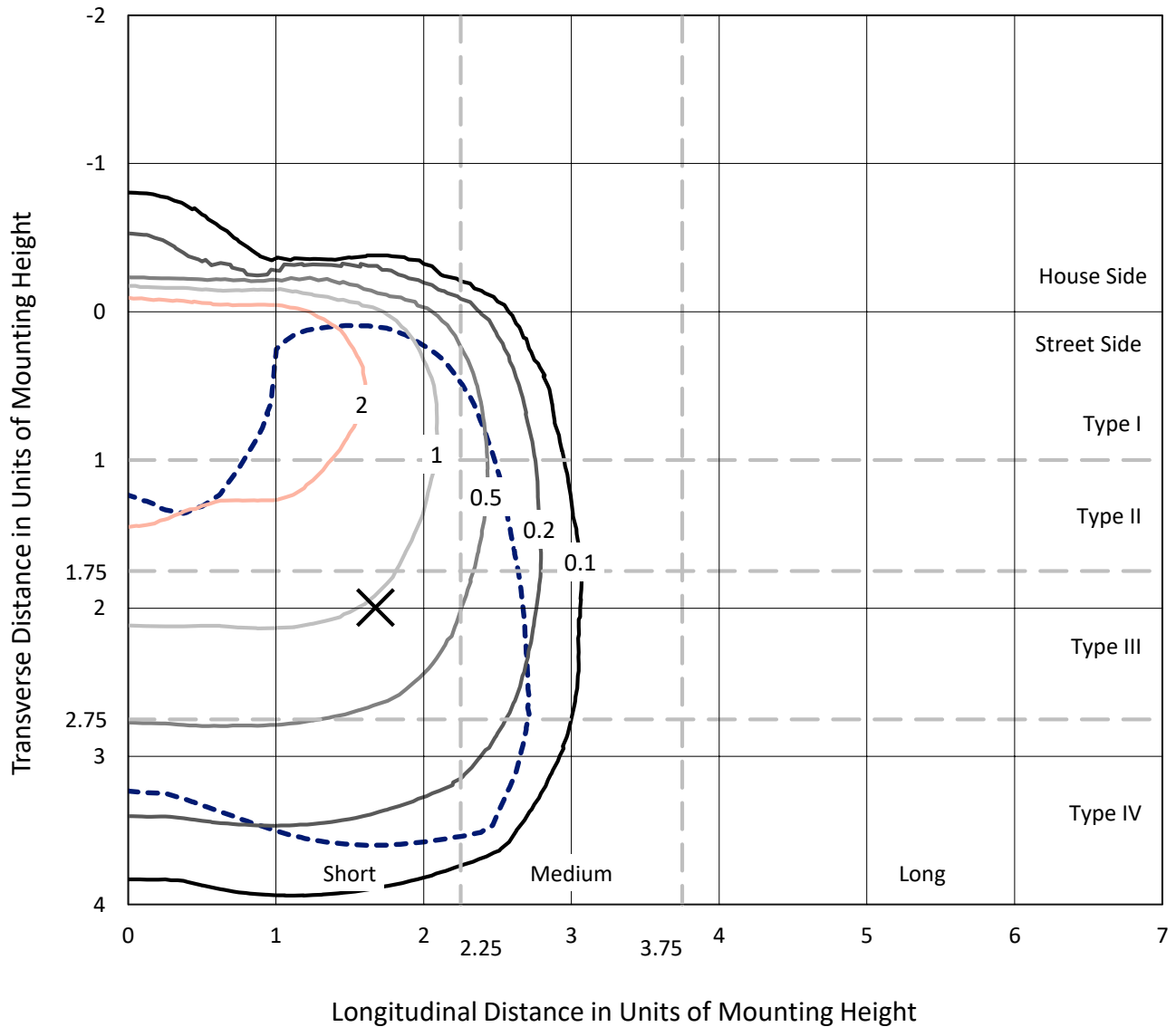
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

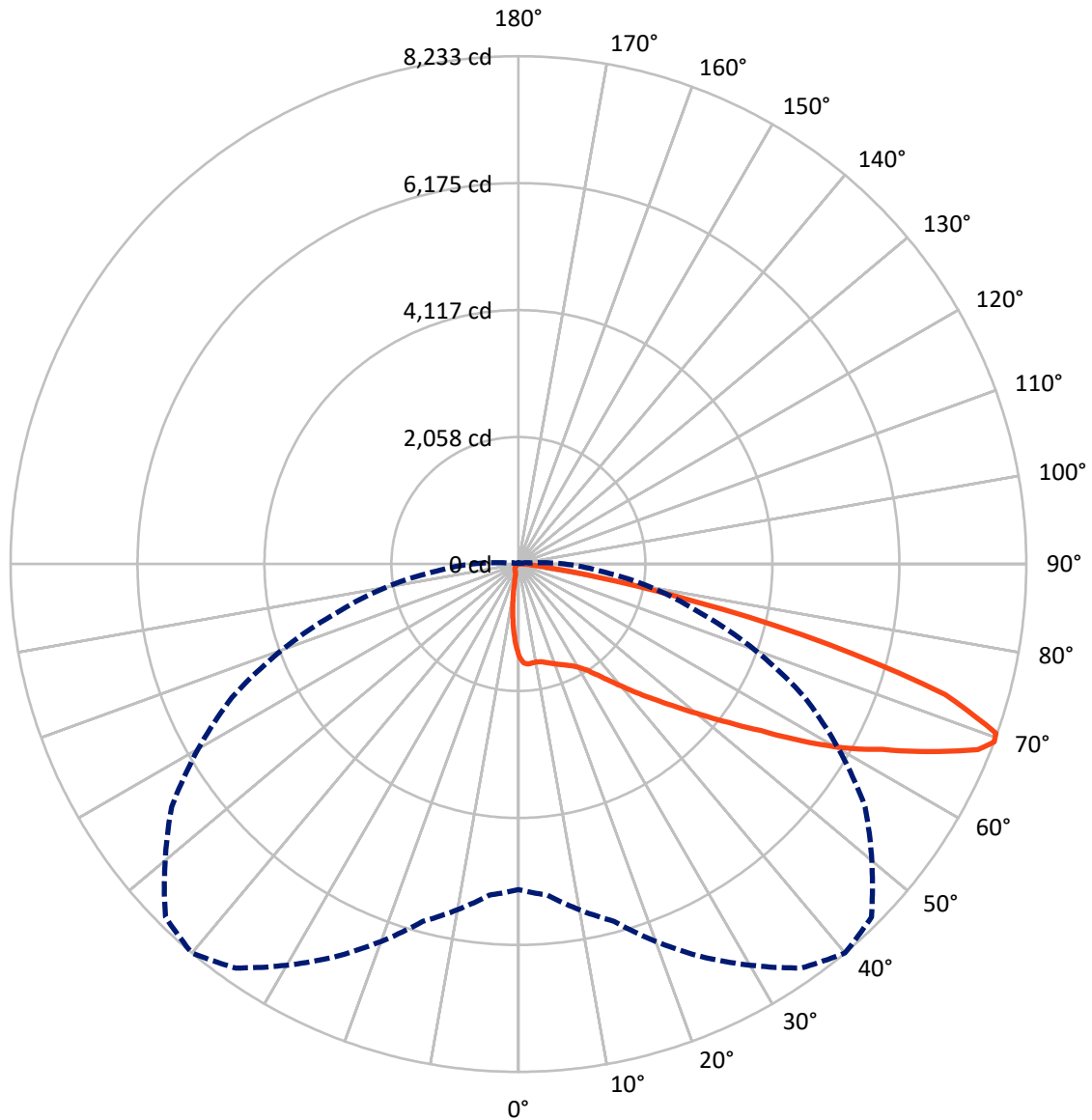
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4.1 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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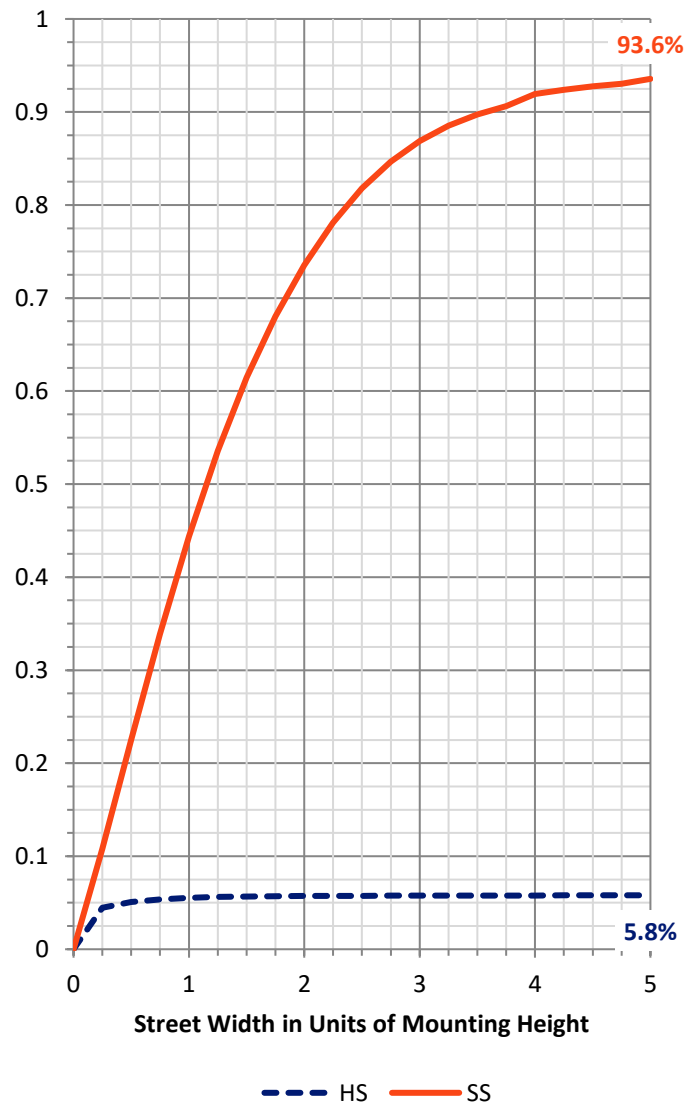
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	586.2	0.0	586.2
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	9432.9	0.0	9432.9
	% Fixture	94.1	0.0	94.1
Total	Lumens	10019.1	0.0	10019.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.4	1.2
10°-20°	298.5	3.0
20°-30°	502.7	5.0
30°-40°	823.0	8.2
40°-50°	1425.0	14.2
50°-60°	2244.5	22.4
60°-70°	2931.2	29.3
70°-80°	1509.7	15.1
80°-90°	163.3	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°	10019.1	100.0
0°-180°	10019.1	100.0



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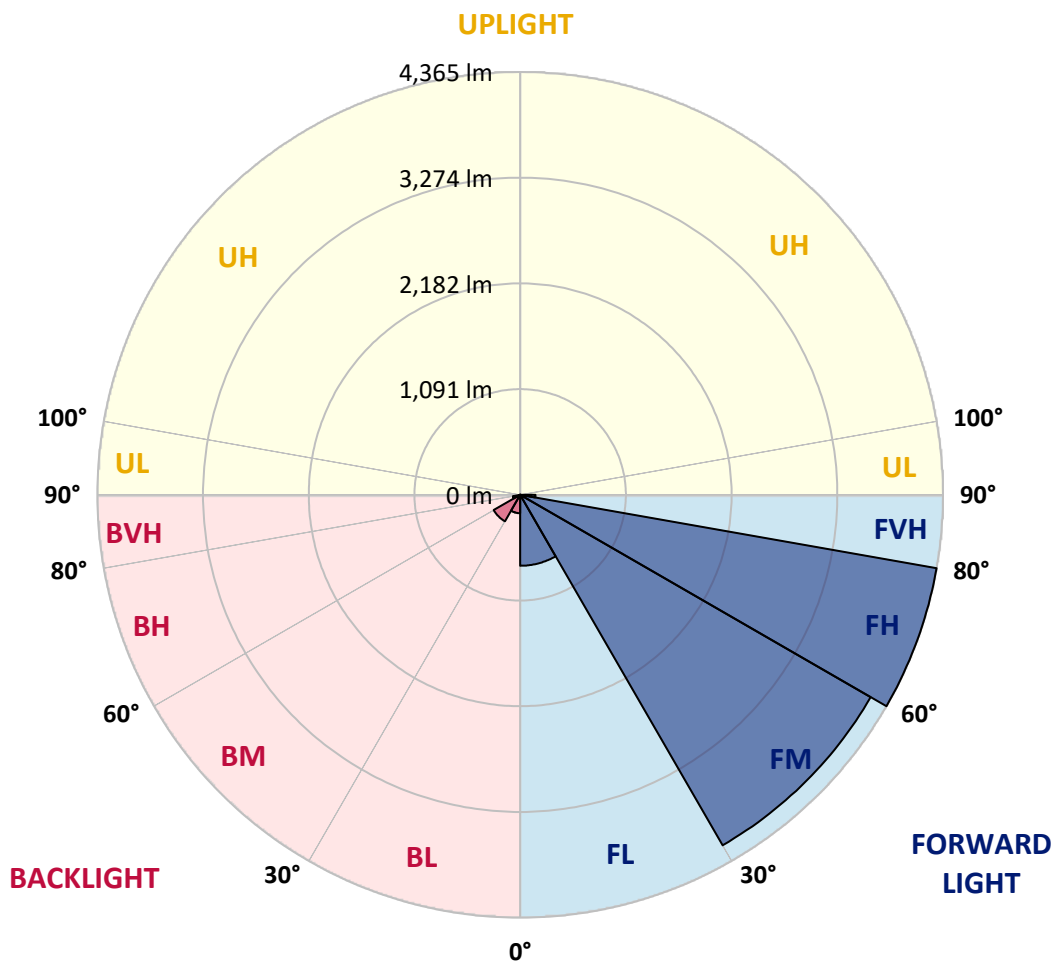
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	732.7	7.3			
FM	(30°-60°)	4177.3	41.7			
FH	(60°-80°)	4364.7	43.6			G2/5000
FVH	(80°-90°)	158.2	1.6			G2/225
BL	(0°-30°)	189.9	1.9	B1/500		
BM	(30°-60°)	315.1	3.1	B1/1000		
BH	(60°-80°)	76.1	0.8	B0/110		G0/110
BVH	(80°-90°)	5.1	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	1496.9	1496.9	1496.9	1496.9	1496.9	1496.9	1496.9	1496.9	1496.9	1496.9	1496.9
2.5°	1643.6	1634.7	1629.3	1622.1	1613.2	1605.4	1602.5	1580.4	1559.5	1530.9	1498.1
5°	1674.0	1671.0	1661.5	1652.0	1641.2	1629.3	1622.7	1596.5	1566.7	1524.9	1467.7
7.5°	1677.0	1673.4	1661.5	1648.4	1633.5	1619.2	1607.8	1581.6	1554.2	1511.8	1442.0
10°	1672.2	1668.1	1659.1	1644.8	1626.3	1612.6	1601.3	1576.2	1553.0	1514.8	1437.3
12.5°	1666.9	1662.7	1658.5	1651.4	1635.3	1625.7	1616.2	1592.3	1571.5	1539.2	1454.6
15°	1672.2	1669.9	1674.6	1671.6	1662.7	1654.3	1644.8	1623.3	1604.3	1577.4	1486.2
17.5°	1694.9	1694.9	1709.8	1711.6	1703.3	1691.3	1677.6	1656.1	1640.0	1617.4	1523.7
20°	1748.0	1746.2	1765.3	1768.9	1748.6	1730.1	1709.8	1683.6	1671.0	1656.7	1560.7
22.5°	1839.2	1830.9	1842.2	1838.6	1798.7	1770.0	1745.0	1712.8	1706.2	1699.7	1601.9
25°	1957.9	1953.1	1960.9	1925.7	1855.3	1816.6	1786.7	1750.4	1750.4	1756.9	1648.4
27.5°	2130.3	2112.4	2086.1	2024.1	1918.5	1869.0	1836.8	1798.1	1808.2	1832.7	1709.8
30°	2306.8	2287.1	2226.9	2131.4	1995.5	1943.6	1906.0	1865.5	1889.3	1934.0	1792.1
32.5°	2480.9	2458.9	2373.6	2253.1	2105.8	2053.9	2017.5	1972.8	2012.8	2087.9	1912.6
35°	2649.7	2630.0	2531.6	2389.7	2252.5	2209.6	2176.2	2137.4	2188.7	2293.7	2082.5
37.5°	2839.3	2817.9	2698.0	2544.1	2430.8	2399.8	2375.4	2336.6	2426.1	2579.9	2319.3
40°	3072.5	3036.2	2874.5	2721.3	2637.2	2622.3	2605.6	2600.2	2739.2	2952.1	2634.8
42.5°	3339.7	3280.1	3059.4	2907.9	2863.8	2874.5	2870.4	2894.2	3131.0	3414.9	3018.9
45°	3606.9	3530.0	3265.2	3107.1	3113.1	3150.7	3173.9	3269.3	3621.8	3945.6	3432.1
47.5°	3833.5	3757.8	3462.6	3322.4	3394.0	3467.9	3531.1	3711.8	4126.3	4468.1	3753.6
50°	4027.3	3955.8	3671.9	3559.2	3720.2	3839.5	3942.0	4209.8	4669.0	4865.8	3979.0
52.5°	4186.0	4138.3	3889.0	3830.5	4092.9	4267.7	4418.0	4738.8	5149.7	5189.1	4154.4
55°	4340.4	4306.4	4122.2	4153.2	4530.7	4768.6	4958.9	5300.0	5563.6	5458.6	4322.5
57.5°	4518.1	4487.1	4388.1	4562.3	5106.2	5405.6	5613.1	5797.4	5928.0	5734.2	4481.2
60°	4699.4	4681.6	4683.9	5016.7	5767.0	6054.4	6168.9	6216.6	6285.8	5993.6	4490.1
62.5°	4872.4	4906.4	5022.1	5522.4	6399.7	6620.4	6678.2	6725.3	6644.2	6034.7	4148.4
65°	5165.2	5220.7	5496.8	6199.3	7095.7	7331.9	7391.5	7229.9	6700.9	5502.8	3374.3
67.5°	5308.3	5409.7	5902.3	6830.3	7770.8	8033.2	8011.1	7262.7	6013.3	4196.1	2165.4
69°	5278.5	5386.5	5996.0	7023.5	7995.0	8233.0	8092.8	6861.3	5122.9	3039.7	1329.3
70°	5160.4	5269.6	5947.7	7016.4	8023.7	8212.1	7941.4	6365.7	4331.5	2222.7	831.3
72.5°	4309.4	4403.6	5280.3	6341.9	7391.5	7238.2	6643.6	4410.2	2110.6	605.3	187.3
75°	2652.7	2705.2	3788.8	4777.6	5582.7	5189.1	4426.3	2194.1	629.2	171.2	103.8
77.5°	1401.5	1425.3	2074.2	2816.1	3538.9	2928.2	2268.6	855.8	289.8	107.3	75.1
80°	828.4	846.3	1117.0	1287.6	1531.5	1279.2	907.1	525.4	207.5	67.4	66.8
82.5°	474.1	485.5	809.9	715.7	603.5	515.3	451.5	498.0	124.6	45.3	69.2
85°	174.1	176.5	455.6	544.5	359.0	213.5	224.2	412.7	33.4	28.6	54.3
87.5°	81.1	79.3	234.4	333.4	209.9	135.4	174.7	90.6	13.1	18.5	14.9
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1496.9	1496.9	1496.9	1496.9	1496.9	1496.9	1496.9	1496.9	1496.9	1496.9	1496.9
2.5°	1479.0	1456.9	1417.0	1375.8	1334.1	1301.9	1270.3	1245.2	1236.9	1221.4	1222.6
5°	1433.7	1393.1	1309.6	1225.0	1136.7	1063.9	995.4	939.9	913.1	885.6	885.6
7.5°	1394.3	1335.3	1204.7	1066.9	924.4	804.5	696.6	615.5	570.7	534.9	534.4
10°	1379.4	1299.5	1117.0	919.6	721.0	557.6	429.4	347.1	304.7	277.3	276.1
12.5°	1386.0	1287.0	1049.6	783.6	534.4	358.4	248.7	195.6	177.7	169.4	169.4
15°	1405.1	1283.4	982.2	650.6	377.5	224.2	165.2	150.9	149.7	149.7	149.7
17.5°	1428.3	1284.6	913.1	521.2	257.0	160.4	142.5	140.7	141.9	141.9	141.9
20°	1452.2	1285.2	838.5	401.4	181.3	139.6	134.2	133.6	134.8	134.8	135.4
22.5°	1481.4	1288.2	764.0	300.0	149.7	131.8	127.6	127.6	128.2	128.2	127.6
25°	1514.8	1294.1	686.4	222.4	136.6	126.4	122.9	122.3	122.9	122.3	121.7
27.5°	1556.5	1302.5	600.0	174.1	130.6	121.1	118.1	118.1	117.5	116.9	116.3
30°	1609.0	1312.0	502.7	147.9	124.6	116.3	113.3	112.7	112.1	110.9	110.9
32.5°	1688.9	1332.9	406.7	134.2	118.1	109.7	107.3	107.3	106.2	105.0	104.4
35°	1811.8	1374.1	320.9	125.8	110.9	102.6	99.6	99.6	98.4	97.8	97.2
37.5°	1981.8	1436.7	249.3	118.1	103.8	94.8	91.8	91.2	90.1	88.9	88.3
40°	2207.8	1514.2	196.2	110.9	96.6	87.1	84.7	83.5	81.1	79.3	79.3
42.5°	2491.7	1602.5	159.2	103.2	88.3	79.9	78.1	76.3	72.2	70.4	69.8
45°	2788.7	1681.8	134.8	94.2	79.9	72.8	71.6	68.6	63.2	61.4	61.4
47.5°	3002.8	1700.3	118.7	85.9	72.2	65.0	64.4	59.0	54.3	53.1	52.5
50°	3136.3	1663.9	105.6	77.5	65.0	57.8	56.1	49.5	46.5	45.3	44.7
52.5°	3226.4	1598.9	94.8	70.4	58.4	51.3	47.1	42.3	40.0	38.8	38.8
55°	3298.6	1507.0	84.1	63.8	53.1	45.9	40.0	36.4	34.0	32.8	32.8
57.5°	3318.8	1382.4	73.4	58.4	47.7	40.6	34.0	31.6	28.6	28.0	28.0
60°	3171.5	1157.6	65.0	51.9	42.9	35.2	29.8	26.8	23.9	23.3	22.7
62.5°	2783.3	895.8	57.3	45.9	37.6	30.4	25.6	22.1	19.7	19.7	19.7
65°	2123.1	600.6	50.1	40.0	32.8	25.6	22.1	17.9	16.7	16.7	17.3
67.5°	1270.9	326.8	42.9	34.0	28.0	21.5	18.5	15.5	14.9	15.5	15.5
69°	744.9	192.0	38.8	30.4	24.5	19.1	16.1	13.7	14.9	15.5	15.5
70°	459.8	129.4	35.8	27.4	22.1	17.3	14.9	13.1	14.3	14.9	14.9
72.5°	128.2	66.8	28.6	21.5	17.9	14.3	11.9	11.9	13.7	14.3	14.3
75°	83.5	49.5	22.1	16.1	13.7	11.3	10.1	11.3	13.1	13.7	13.7
77.5°	69.2	40.6	17.9	13.1	11.3	10.7	9.5	10.1	11.9	12.5	12.5
80°	63.2	28.6	14.3	11.9	10.1	9.5	8.9	8.3	10.7	11.3	11.3
82.5°	60.2	22.7	12.5	10.7	9.5	8.3	7.8	8.3	9.5	10.1	10.7
85°	37.6	14.9	11.3	10.1	8.3	7.8	7.8	7.8	8.9	9.5	9.5
87.5°	13.7	11.9	10.1	8.3	7.2	7.2	7.2	7.2	7.8	8.9	8.9
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)