

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: P299467

Luminaire Tested: **GLNA-AF-03-LED-E1-5NQ-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299467
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24141)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-03-LED-E1-5NQ-7027-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10692 lumens
Efficiency: N/A
Efficacy: 111.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B3 - U0 - G1

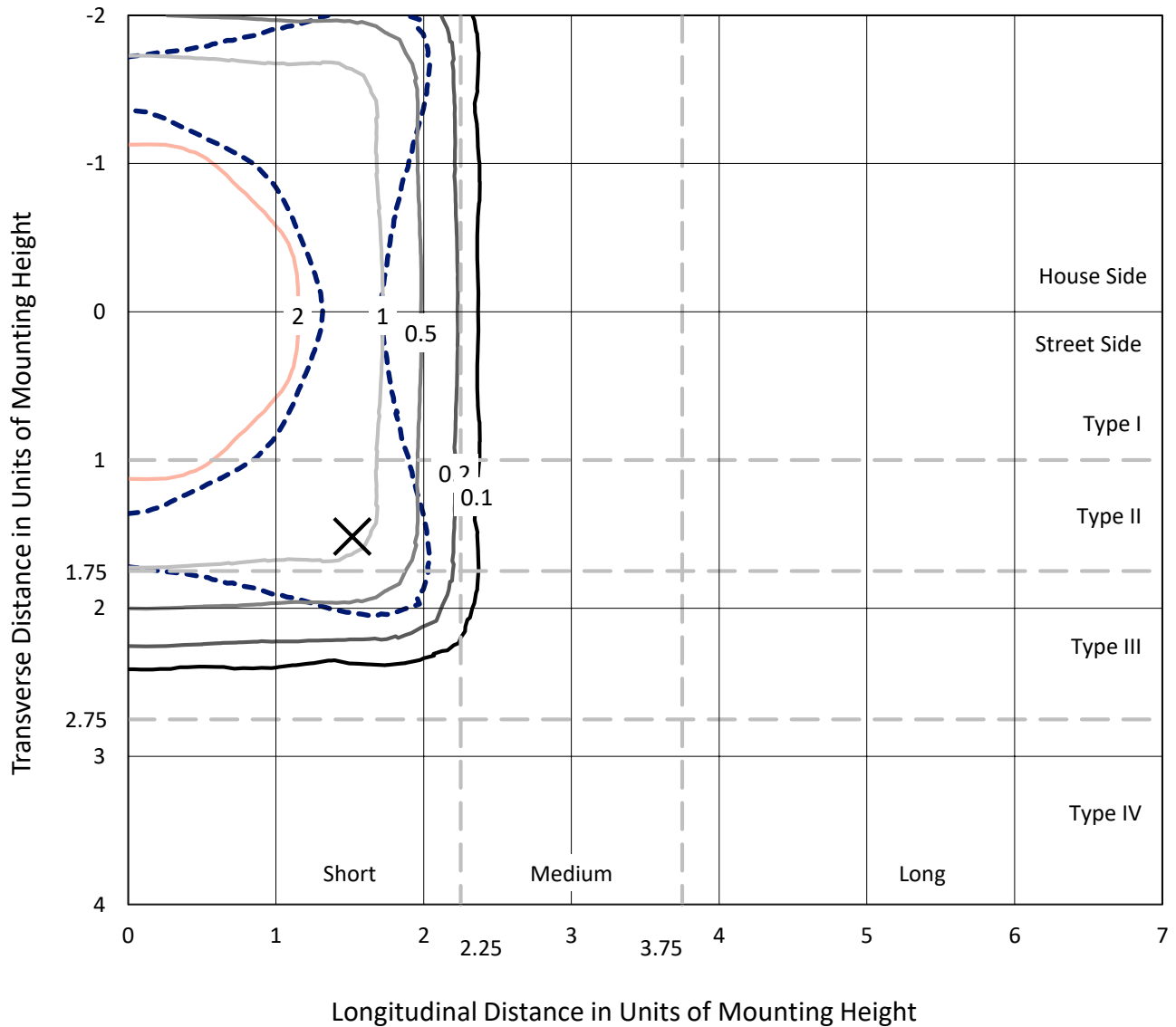
Input Watts (W): 96
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

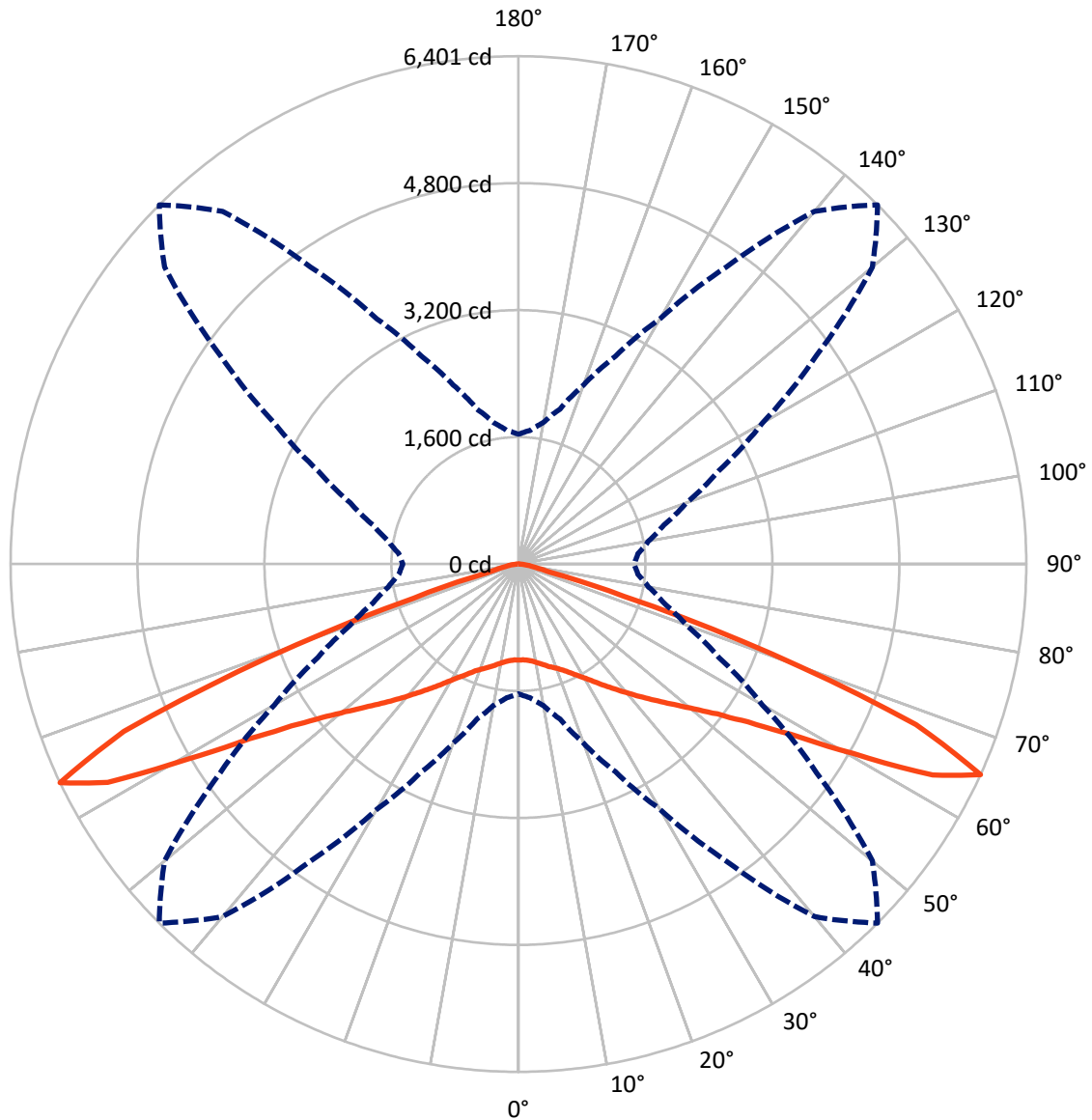
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5346.0	0.0	5346.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	5346.0	0.0	5346.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	10692.0	0.0	10692.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.9	1.1
10°-20°	378.2	3.5
20°-30°	707.1	6.6
30°-40°	1195.9	11.2
40°-50°	1955.5	18.3
50°-60°	3109.6	29.1
60°-70°	2810.8	26.3
70°-80°	355.7	3.3
80°-90°	61.2	0.6
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°	10692.0	100.0
0°-180°	10692.0	100.0



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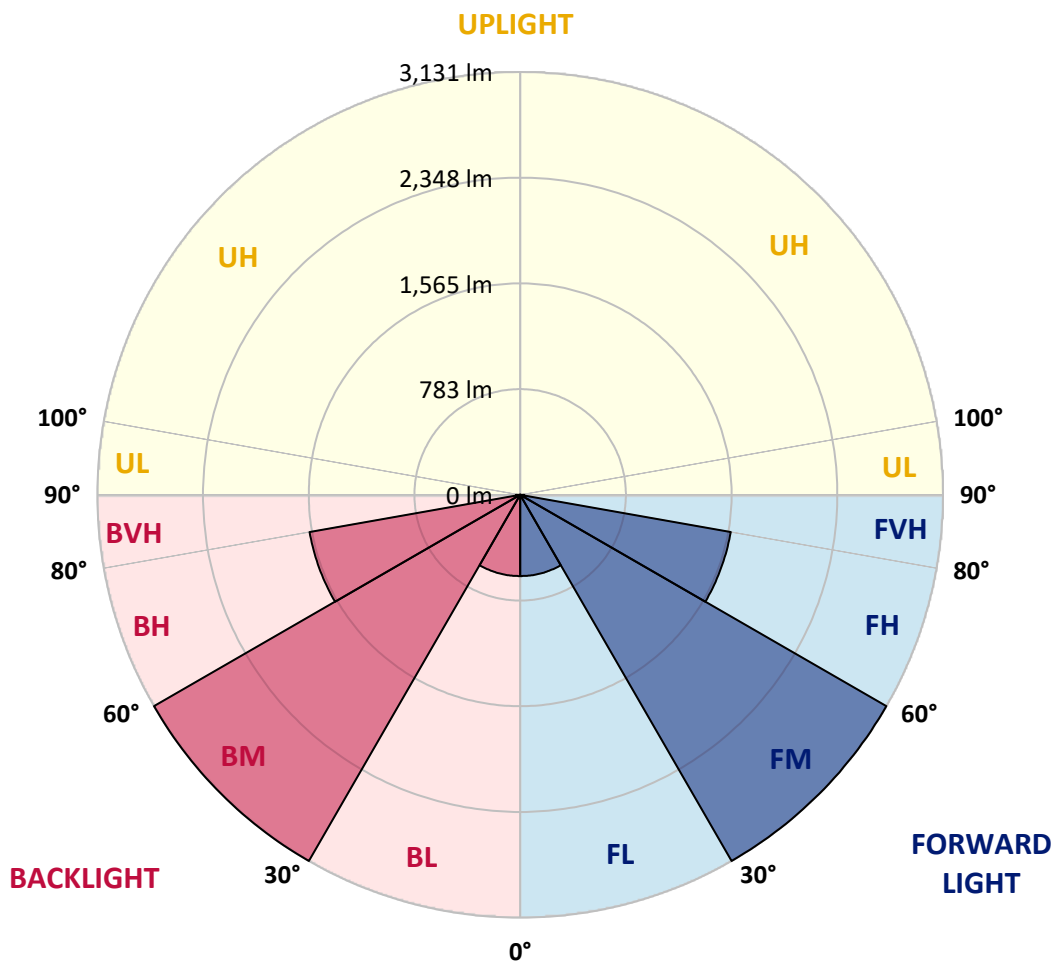
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	601.6	5.6			
FM	(30°-60°)	3130.5	29.3			
FH	(60°-80°)	1583.3	14.8			G1/1800
FVH	(80°-90°)	30.6	0.3			G1/100
BL	(0°-30°)	601.6	5.6	B2/1000		
BM	(30°-60°)	3130.5	29.3	B3/5000		
BH	(60°-80°)	1583.3	14.8	B3/2500		G1/1800
BVH	(80°-90°)	30.6	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G1

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1209.8	1209.8	1209.8	1209.8	1209.8	1209.8	1209.8	1209.8	1209.8	1209.8	1209.8
2.5°	1210.8	1211.8	1212.8	1211.8	1212.8	1211.3	1210.3	1211.8	1210.3	1208.8	1209.8
5°	1221.3	1221.8	1221.8	1220.3	1221.8	1220.8	1219.3	1221.3	1219.8	1218.3	1219.3
7.5°	1238.9	1240.9	1239.4	1237.8	1238.9	1237.8	1236.8	1237.3	1236.8	1235.3	1235.8
10°	1262.4	1263.9	1262.9	1262.4	1263.4	1262.9	1261.9	1261.4	1261.9	1260.4	1260.4
12.5°	1290.9	1290.4	1289.9	1290.4	1291.9	1291.9	1291.4	1291.9	1292.9	1293.4	1292.4
15°	1319.0	1320.0	1320.0	1320.0	1323.0	1325.5	1327.0	1328.0	1330.0	1330.5	1328.5
17.5°	1354.0	1354.0	1353.5	1354.0	1357.0	1361.0	1362.5	1364.5	1366.5	1368.0	1365.5
20°	1393.1	1394.1	1394.1	1395.1	1399.1	1403.6	1403.6	1404.6	1403.6	1404.6	1403.1
22.5°	1440.7	1443.7	1443.7	1444.2	1448.2	1453.7	1452.2	1453.7	1451.2	1453.2	1451.2
25°	1502.7	1507.3	1506.3	1506.3	1509.3	1512.8	1513.3	1516.3	1515.8	1518.3	1516.8
27.5°	1572.9	1579.9	1581.9	1581.4	1583.4	1586.9	1587.9	1591.4	1589.4	1591.4	1590.4
30°	1657.0	1660.0	1664.0	1665.5	1668.0	1671.5	1671.5	1672.0	1669.5	1672.5	1674.0
32.5°	1744.1	1749.6	1753.6	1762.6	1767.1	1769.6	1769.1	1770.1	1767.6	1771.6	1774.7
35°	1859.3	1863.3	1869.8	1876.8	1882.8	1882.3	1880.8	1881.3	1881.3	1884.8	1887.8
37.5°	1998.0	1999.0	2007.5	2017.5	2020.5	2017.5	2008.5	2006.5	2002.0	2006.5	2011.5
40°	2144.7	2148.2	2165.2	2171.7	2173.2	2167.7	2154.7	2147.2	2137.2	2142.7	2149.7
42.5°	2298.4	2305.4	2321.0	2332.5	2337.5	2334.0	2316.0	2304.4	2291.4	2294.4	2301.4
45°	2468.7	2477.2	2499.2	2510.3	2519.8	2514.3	2496.7	2479.2	2458.7	2460.2	2471.2
47.5°	2659.0	2667.5	2696.0	2714.6	2719.6	2718.6	2699.0	2675.0	2647.0	2646.0	2655.5
50°	2872.3	2880.8	2916.4	2944.9	2959.4	2957.9	2934.9	2900.8	2866.8	2867.3	2879.3
52.5°	3080.6	3091.1	3128.2	3177.2	3205.8	3226.3	3212.3	3180.3	3138.7	3139.7	3150.7
55°	3275.9	3293.4	3336.0	3402.6	3455.7	3513.3	3529.8	3528.8	3503.7	3510.7	3521.8
57.5°	3370.5	3396.6	3462.2	3567.3	3675.5	3792.7	3891.8	3965.9	3997.5	4045.0	4034.0
60°	3191.3	3232.8	3329.5	3484.2	3698.0	3942.4	4204.3	4460.2	4678.5	4843.2	4748.6
62.5°	2612.9	2667.0	2784.2	2982.5	3305.9	3697.0	4198.3	4803.2	5462.2	5859.8	5575.8
65°	1634.9	1691.0	1810.2	2022.5	2401.1	2887.3	3567.3	4569.8	5801.2	6400.6	5822.7
67.5°	637.5	668.0	732.6	868.3	1152.7	1585.4	2267.9	3405.6	4878.3	5403.6	4787.7
70°	319.5	322.5	334.5	359.5	420.6	546.3	831.2	1578.9	2797.7	3379.1	2697.0
72.5°	230.8	231.3	237.4	248.4	267.9	295.9	350.0	483.2	909.9	1390.6	852.8
75°	176.8	178.8	182.3	188.3	198.8	212.8	232.3	278.4	345.0	400.1	336.5
77.5°	136.2	140.2	142.7	148.2	154.7	164.2	169.8	187.3	217.8	229.3	225.8
80°	103.7	107.2	112.7	117.2	121.7	126.2	124.2	132.2	148.2	157.7	152.7
82.5°	66.1	70.1	86.1	90.1	92.1	95.1	91.6	92.1	99.1	105.2	99.1
85°	42.6	45.1	54.6	59.6	60.1	62.1	60.6	57.1	57.1	52.1	58.6
87.5°	19.5	20.0	24.5	29.0	30.0	27.0	26.5	25.5	20.5	19.5	21.0
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1209.8	1209.8	1209.8	1209.8	1209.8	1209.8	1209.8	1209.8
2.5°	1209.3	1210.3	1210.8	1212.3	1212.8	1212.8	1213.3	1214.3
5°	1218.8	1220.3	1220.8	1222.8	1223.3	1222.8	1223.8	1224.3
7.5°	1235.8	1238.4	1239.4	1241.4	1239.9	1241.9	1242.4	1242.4
10°	1260.9	1263.4	1263.9	1265.9	1264.9	1265.9	1265.9	1264.9
12.5°	1293.9	1294.4	1292.9	1294.4	1292.4	1293.4	1291.9	1290.9
15°	1330.5	1329.0	1325.5	1325.5	1322.5	1323.0	1322.5	1322.0
17.5°	1366.0	1363.0	1360.5	1359.5	1357.0	1356.5	1355.0	1355.0
20°	1405.1	1403.6	1402.1	1400.1	1397.6	1395.1	1394.6	1395.6
22.5°	1452.2	1451.7	1451.7	1450.7	1447.2	1444.7	1443.2	1443.2
25°	1515.3	1510.8	1510.8	1510.3	1508.8	1507.3	1504.2	1505.8
27.5°	1586.4	1583.9	1585.9	1585.4	1583.9	1583.9	1581.9	1581.9
30°	1674.0	1673.0	1676.0	1673.5	1668.5	1668.0	1666.0	1663.5
32.5°	1775.2	1774.2	1778.7	1775.7	1767.6	1763.1	1759.1	1757.1
35°	1887.8	1888.3	1893.8	1891.8	1882.8	1879.8	1872.8	1871.8
37.5°	2011.0	2019.0	2028.5	2030.5	2023.0	2021.0	2013.5	2009.5
40°	2155.7	2166.2	2180.8	2184.3	2176.3	2174.8	2164.2	2158.7
42.5°	2310.0	2328.0	2346.0	2349.0	2341.0	2333.0	2323.0	2319.0
45°	2482.2	2503.7	2527.3	2533.3	2521.3	2511.8	2498.7	2498.7
47.5°	2675.5	2702.5	2729.1	2745.6	2734.6	2724.6	2709.0	2699.0
50°	2903.8	2940.9	2975.4	2992.5	2974.9	2955.9	2928.9	2919.9
52.5°	3190.3	3230.3	3260.4	3251.4	3224.3	3197.8	3168.2	3156.2
55°	3555.8	3569.3	3569.3	3535.3	3481.2	3436.6	3390.1	3374.5
57.5°	4013.0	3960.9	3880.8	3779.1	3651.5	3540.3	3465.2	3429.6
60°	4550.3	4299.9	4017.0	3739.1	3510.7	3322.5	3210.8	3159.7
62.5°	4908.3	4253.4	3686.5	3240.3	2911.9	2685.0	2530.8	2470.7
65°	4587.4	3547.3	2788.2	2254.4	1896.3	1665.5	1512.8	1456.7
67.5°	3360.0	2222.8	1484.7	1064.1	779.7	621.9	559.3	533.3
70°	1508.3	782.7	479.7	374.6	323.0	296.4	284.9	280.9
72.5°	454.7	329.0	277.4	250.4	229.8	216.8	207.3	206.3
75°	274.4	228.3	202.8	186.8	173.8	163.2	158.2	156.7
77.5°	191.8	167.8	155.7	144.2	134.2	126.2	121.7	118.2
80°	134.7	123.2	117.7	111.2	104.7	97.1	90.6	87.6
82.5°	90.1	87.6	87.6	83.6	78.1	71.1	58.1	55.1
85°	58.1	57.6	58.6	57.1	53.1	45.6	37.6	35.6
87.5°	27.0	27.5	30.5	30.0	29.0	24.0	19.0	18.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)