

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: P299341

Luminaire Tested: **GLNA-AF-02-LED-E1-5NQ-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299341
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-02-LED-E1-5NQ-7027
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10877 lumens
Efficiency: N/A
Efficacy: 96.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B3 - U0 - G1

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

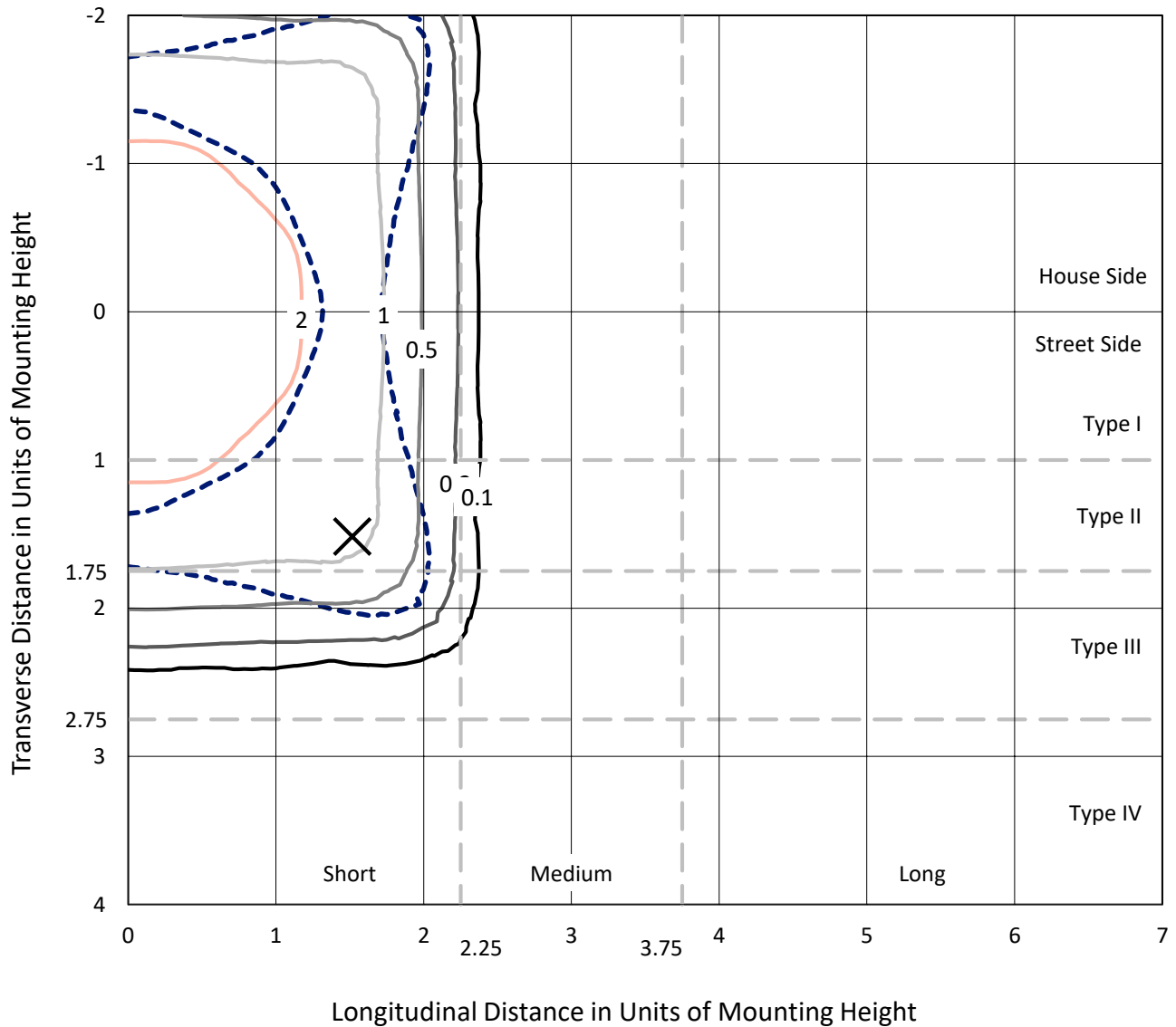


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Iso-Footcandle Lines of Horizontal Illumination

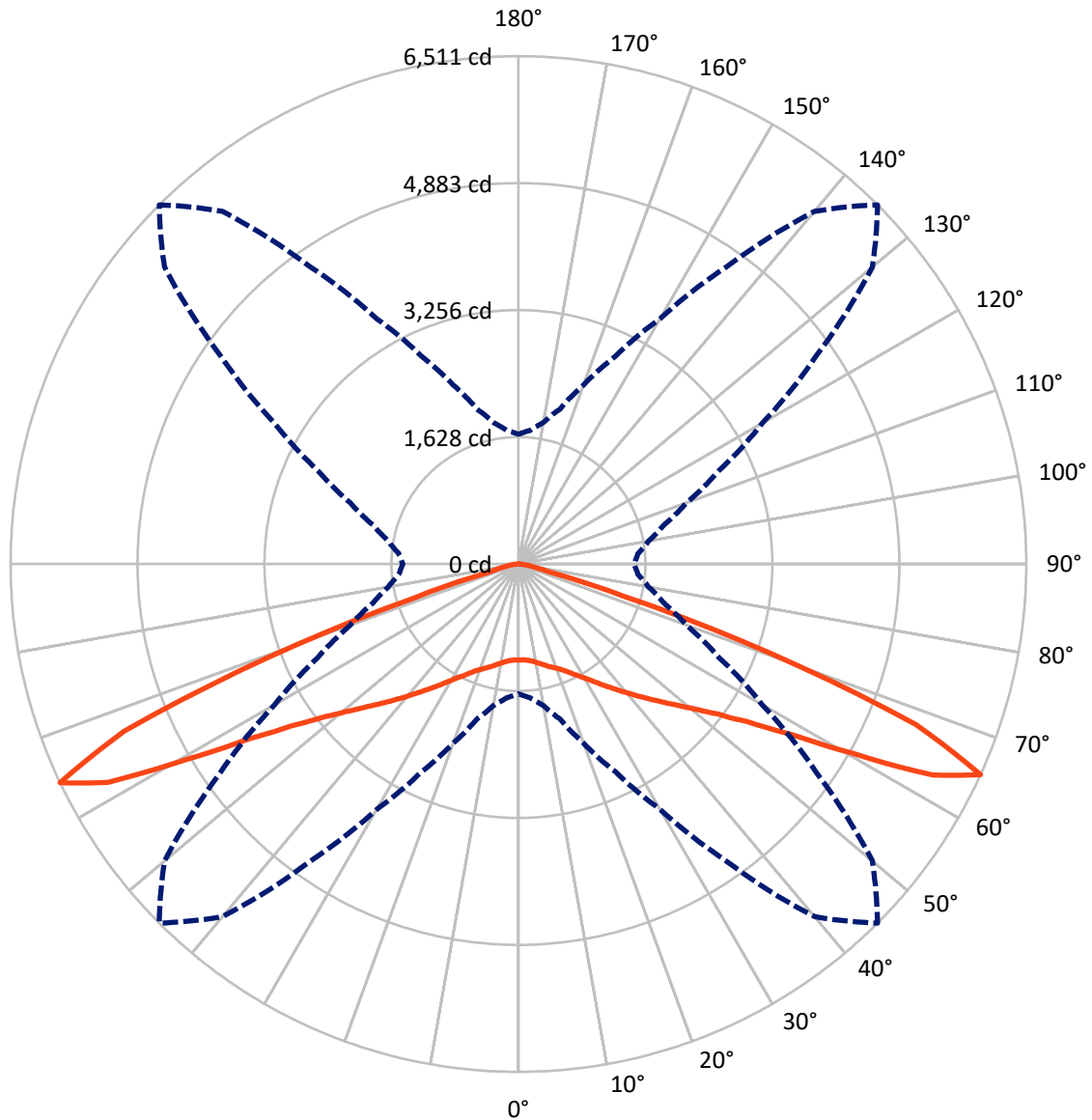
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3.1 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	5438.5	0.0	5438.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	5438.5	0.0	5438.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	10877.0	0.0	10877.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.0	1.1
10°-20°	384.7	3.5
20°-30°	719.4	6.6
30°-40°	1216.6	11.2
40°-50°	1989.3	18.3
50°-60°	3163.4	29.1
60°-70°	2859.5	26.3
70°-80°	361.9	3.3
80°-90°	62.3	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°	10877.0	100.0
0°-180°	10877.0	100.0

Coefficient of Utilization



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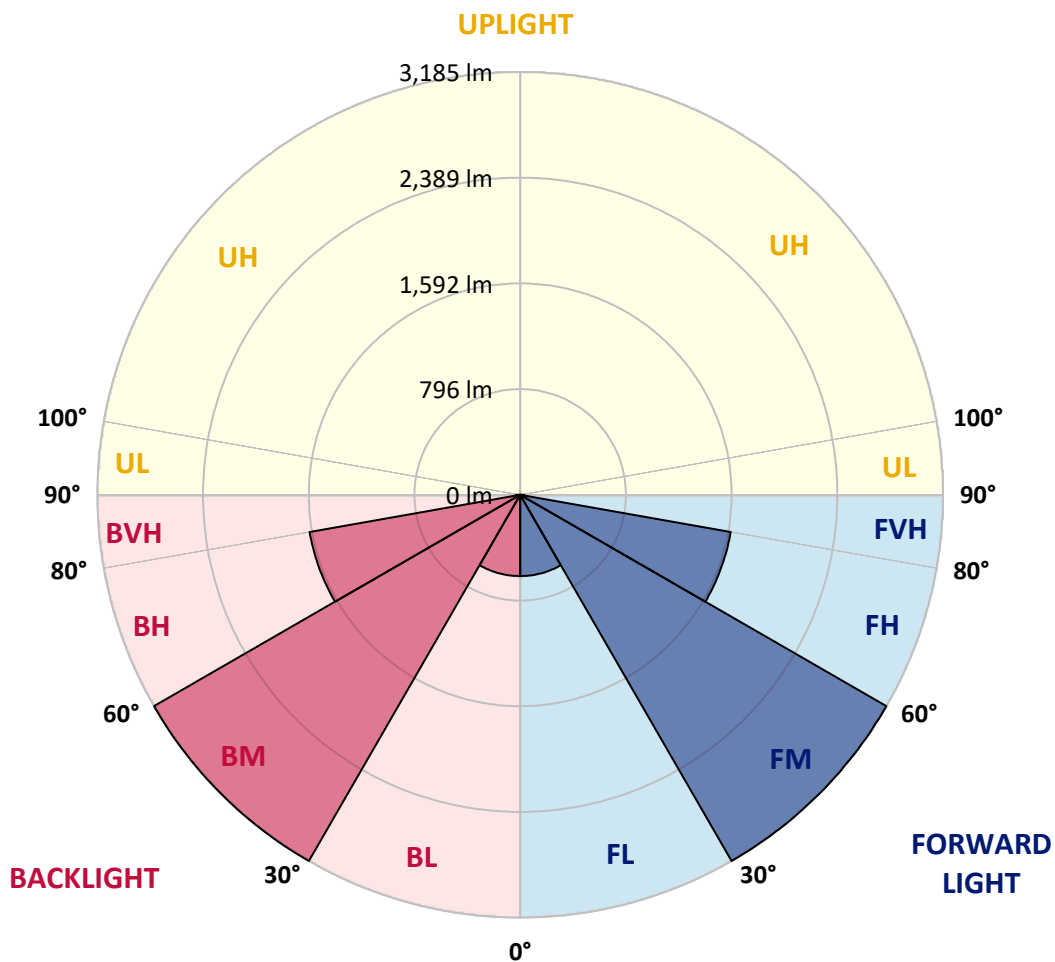
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	612.0	5.6			
FM	(30°-60°)	3184.7	29.3			
FH	(60°-80°)	1610.7	14.8			G1/1800
FVH	(80°-90°)	31.1	0.3			G1/100
BL	(0°-30°)	612.0	5.6	B2/1000		
BM	(30°-60°)	3184.7	29.3	B3/5000		
BH	(60°-80°)	1610.7	14.8	B3/2500		G1/1800
BVH	(80°-90°)	31.1	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°	1230.7	1230.7	1230.7	1230.7	1230.7	1230.7	1230.7	1230.7	1230.7	1230.7	1230.7
2.5°	1231.8	1232.8	1233.8	1232.8	1233.8	1232.3	1231.3	1232.8	1231.3	1229.7	1230.7
5°	1242.5	1243.0	1243.0	1241.4	1243.0	1241.9	1240.4	1242.5	1240.9	1239.4	1240.4
7.5°	1260.3	1262.3	1260.8	1259.3	1260.3	1259.3	1258.2	1258.8	1258.2	1256.7	1257.2
10°	1284.2	1285.8	1284.7	1284.2	1285.2	1284.7	1283.7	1283.2	1283.7	1282.2	1282.2
12.5°	1313.3	1312.8	1312.2	1312.8	1314.3	1314.3	1313.8	1314.3	1315.3	1315.8	1314.8
15°	1341.8	1342.8	1342.8	1342.8	1345.9	1348.4	1349.9	1351.0	1353.0	1353.5	1351.5
17.5°	1377.5	1377.5	1376.9	1377.5	1380.5	1384.6	1386.1	1388.1	1390.2	1391.7	1389.2
20°	1417.2	1418.2	1418.2	1419.2	1423.3	1427.9	1427.9	1428.9	1427.9	1428.9	1427.4
22.5°	1465.6	1468.6	1468.6	1469.1	1473.2	1478.8	1477.3	1478.8	1476.3	1478.3	1476.3
25°	1528.7	1533.3	1532.3	1532.3	1535.4	1538.9	1539.4	1542.5	1542.0	1544.5	1543.0
27.5°	1600.1	1607.2	1609.2	1608.7	1610.8	1614.3	1615.3	1618.9	1616.9	1618.9	1617.9
30°	1685.6	1688.7	1692.8	1694.3	1696.9	1700.4	1700.4	1700.9	1698.4	1701.4	1703.0
32.5°	1774.3	1779.9	1784.0	1793.1	1797.7	1800.3	1799.8	1800.8	1798.2	1802.3	1805.4
35°	1891.4	1895.5	1902.1	1909.3	1915.4	1914.9	1913.4	1913.9	1913.9	1917.4	1920.5
37.5°	2032.6	2033.6	2042.2	2052.4	2055.5	2052.4	2043.3	2041.2	2036.6	2041.2	2046.3
40°	2181.8	2185.4	2202.7	2209.3	2210.9	2205.2	2192.0	2184.4	2174.2	2179.8	2186.9
42.5°	2338.2	2345.3	2361.1	2372.8	2377.9	2374.4	2356.0	2344.3	2331.1	2334.1	2341.3
45°	2511.4	2520.1	2542.5	2553.7	2563.4	2557.8	2539.9	2522.1	2501.2	2502.7	2514.0
47.5°	2705.0	2713.6	2742.7	2761.5	2766.6	2765.6	2745.7	2721.3	2692.8	2691.7	2701.4
50°	2922.0	2930.7	2966.8	2995.9	3010.6	3009.1	2985.7	2951.0	2916.4	2916.9	2929.1
52.5°	3133.9	3144.6	3182.3	3232.2	3261.3	3282.1	3267.9	3235.3	3193.0	3194.0	3205.2
55°	3332.6	3350.4	3393.7	3461.5	3515.5	3574.0	3590.8	3589.8	3564.4	3571.5	3582.7
57.5°	3428.9	3455.3	3522.1	3629.1	3739.1	3858.3	3959.2	4034.5	4066.6	4115.0	4103.8
60°	3246.5	3288.8	3387.1	3544.5	3762.0	4010.6	4277.0	4537.3	4759.4	4927.0	4830.8
62.5°	2658.1	2713.1	2832.3	3034.1	3363.1	3761.0	4270.9	4886.3	5556.7	5961.1	5672.3
65°	1663.2	1720.3	1841.5	2057.5	2442.6	2937.3	3629.1	4648.9	5901.5	6511.3	5923.4
67.5°	648.5	679.6	745.3	883.3	1172.7	1612.8	2307.1	3464.5	4962.7	5497.1	4870.5
70°	325.0	328.1	340.3	365.8	427.9	555.8	845.6	1606.2	2846.1	3437.5	2743.7
72.5°	234.8	235.3	241.5	252.7	272.5	301.1	356.1	491.6	925.6	1414.6	867.5
75°	179.8	181.9	185.4	191.5	202.2	216.5	236.4	283.2	351.0	407.0	342.3
77.5°	138.6	142.6	145.2	150.8	157.4	167.1	172.7	190.5	221.6	233.3	229.7
80°	105.4	109.0	114.6	119.2	123.8	128.4	126.3	134.5	150.8	160.5	155.4
82.5°	67.2	71.3	87.6	91.7	93.7	96.8	93.2	93.7	100.9	107.0	100.9
85°	43.3	45.8	55.5	60.6	61.1	63.2	61.6	58.1	58.1	53.0	59.6
87.5°	19.9	20.4	25.0	29.5	30.6	27.5	27.0	26.0	20.9	19.9	21.4
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1230.7	1230.7	1230.7	1230.7	1230.7	1230.7	1230.7	1230.7
2.5°	1230.2	1231.3	1231.8	1233.3	1233.8	1233.8	1234.3	1235.3
5°	1239.9	1241.4	1241.9	1244.0	1244.5	1244.0	1245.0	1245.5
7.5°	1257.2	1259.8	1260.8	1262.8	1261.3	1263.3	1263.9	1263.9
10°	1282.7	1285.2	1285.8	1287.8	1286.8	1287.8	1287.8	1286.8
12.5°	1316.3	1316.8	1315.3	1316.8	1314.8	1315.8	1314.3	1313.3
15°	1353.5	1352.0	1348.4	1348.4	1345.4	1345.9	1345.4	1344.8
17.5°	1389.7	1386.6	1384.1	1383.1	1380.5	1380.0	1378.5	1378.5
20°	1429.4	1427.9	1426.4	1424.3	1421.8	1419.2	1418.7	1419.7
22.5°	1477.3	1476.8	1476.8	1475.8	1472.2	1469.7	1468.1	1468.1
25°	1541.5	1536.9	1536.9	1536.4	1534.9	1533.3	1530.3	1531.8
27.5°	1613.8	1611.3	1613.3	1612.8	1611.3	1611.3	1609.2	1609.2
30°	1703.0	1701.9	1705.0	1702.5	1697.4	1696.9	1694.8	1692.3
32.5°	1805.9	1804.8	1809.4	1806.4	1798.2	1793.6	1789.6	1787.5
35°	1920.5	1921.0	1926.6	1924.6	1915.4	1912.3	1905.2	1904.2
37.5°	2045.8	2054.0	2063.6	2065.7	2058.0	2056.0	2048.3	2044.3
40°	2193.0	2203.7	2218.5	2222.1	2213.9	2212.4	2201.7	2196.1
42.5°	2349.9	2368.3	2386.6	2389.7	2381.5	2373.4	2363.2	2359.1
45°	2525.2	2547.1	2571.0	2577.1	2564.9	2555.2	2542.0	2542.0
47.5°	2721.8	2749.3	2776.3	2793.1	2781.9	2771.7	2755.9	2745.7
50°	2954.1	2991.8	3026.9	3044.2	3026.4	3007.1	2979.6	2970.4
52.5°	3245.5	3286.2	3316.8	3307.6	3280.1	3253.1	3223.1	3210.8
55°	3617.3	3631.1	3631.1	3596.5	3541.4	3496.1	3448.7	3432.9
57.5°	4082.4	4029.5	3947.9	3844.5	3714.6	3601.5	3525.1	3489.0
60°	4629.0	4374.3	4086.5	3803.8	3571.5	3380.0	3266.4	3214.4
62.5°	4993.3	4326.9	3750.3	3296.4	2962.2	2731.5	2574.6	2513.4
65°	4666.7	3608.7	2836.4	2293.4	1929.1	1694.3	1538.9	1481.9
67.5°	3418.2	2261.3	1510.4	1082.5	793.2	632.7	569.0	542.5
70°	1534.4	796.2	488.0	381.0	328.6	301.6	289.9	285.8
72.5°	462.5	334.7	282.2	254.7	233.8	220.6	210.9	209.9
75°	279.2	232.3	206.3	190.0	176.8	166.1	161.0	159.4
77.5°	195.1	170.7	158.4	146.7	136.5	128.4	123.8	120.2
80°	137.0	125.3	119.7	113.1	106.5	98.8	92.2	89.1
82.5°	91.7	89.1	89.1	85.1	79.5	72.3	59.1	56.0
85°	59.1	58.6	59.6	58.1	54.0	46.4	38.2	36.2
87.5°	27.5	28.0	31.1	30.6	29.5	24.5	19.4	18.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)