

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: LUMARK

Report Number: P144248

Luminaire Tested: **LDRL-5XQ-E04-E-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P144248
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33699)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: LDRL-5XQ-E04-E-8030
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE EXTRA WIDE
Light Source: (84) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10438.8 lumens
Efficiency: N/A
Efficacy: 107.4 lumens/watt
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
IES Classification: Type V - Short - Non-Cutoff
BUG Rating: B4 - U0 - G3

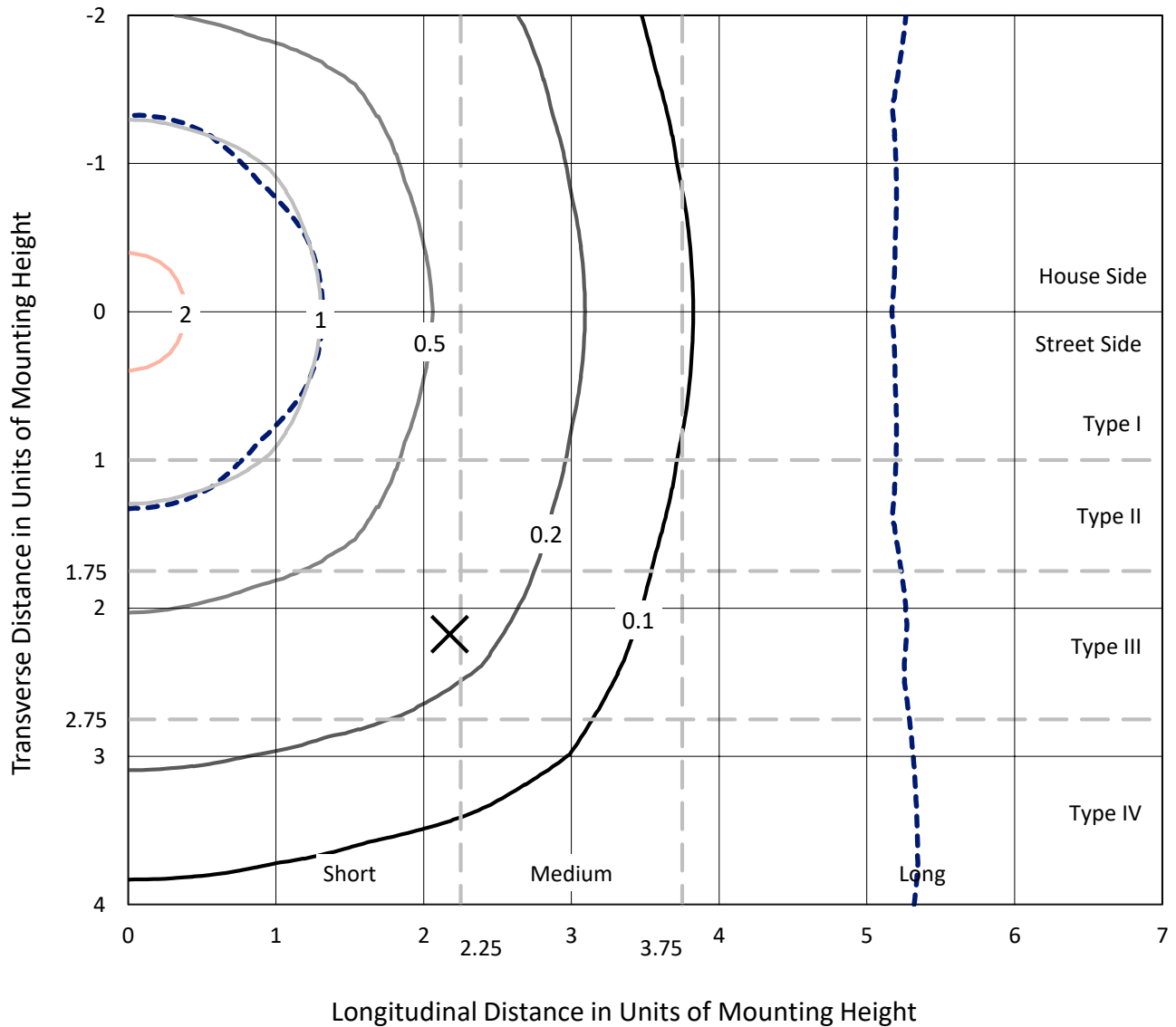
Input Watts (W): 97.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

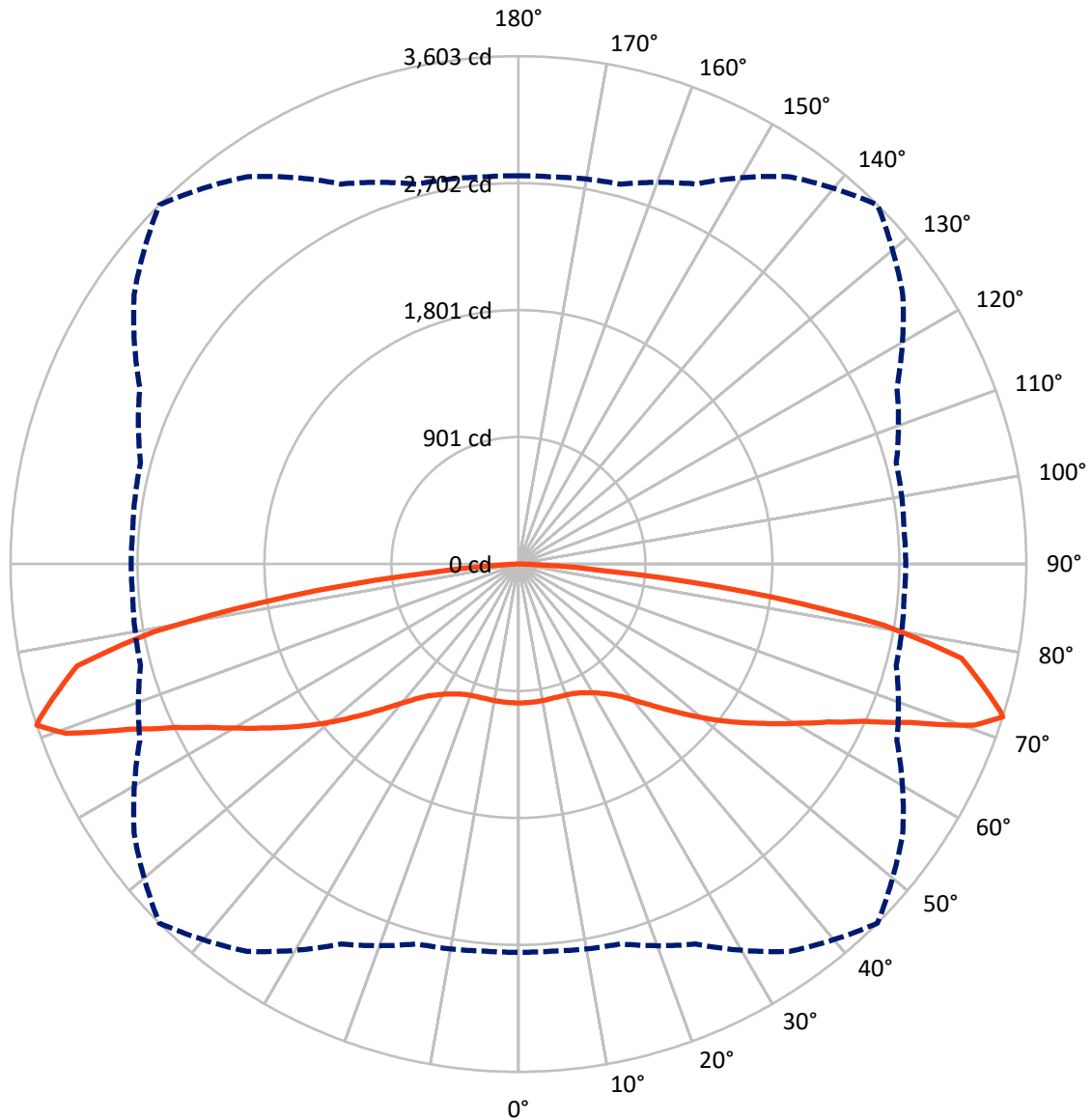


Based on 20 foot mounting height. Maximum calculated value = 2.5 fc
 Type V - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 72-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5219.4	0.0	5219.4
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	5219.4	0.0	5219.4
	% Fixture	50.0	0.0	50.0
Total	Lumens	10438.8	0.0	10438.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.1	0.9
10°-20°	279.5	2.7
20°-30°	469.5	4.5
30°-40°	714.5	6.8
40°-50°	1129.6	10.8
50°-60°	1725.3	16.5
60°-70°	2527.6	24.2
70°-80°	2871.5	27.5
80°-90°	627.2	6.0
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°	10438.8	100.0
0°-180°	10438.8	100.0



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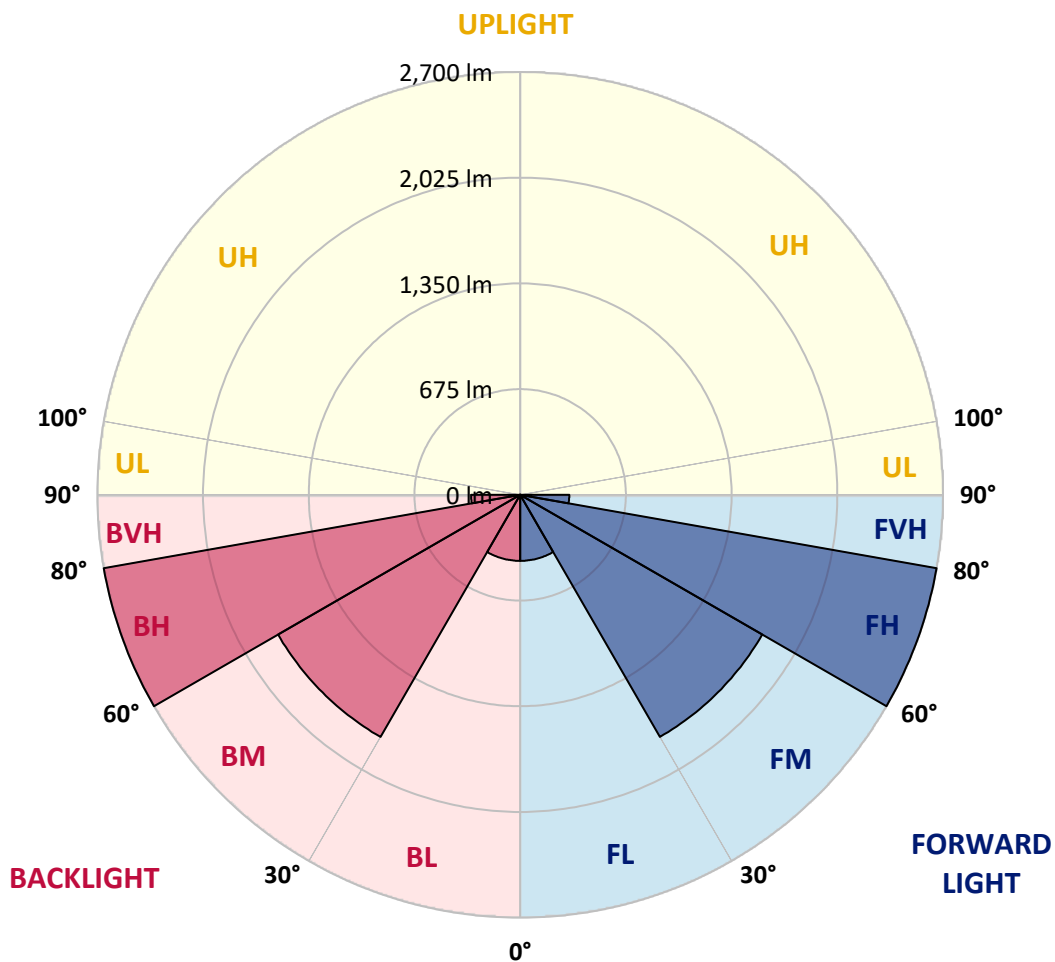
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	421.5	4.0			
FM	(30°-60°)	1784.7	17.1			
FH	(60°-80°)	2699.6	25.9			G2/5000
FVH	(80°-90°)	313.6	3.0			G3/500
BL	(0°-30°)	421.5	4.0	B1/500		
BM	(30°-60°)	1784.7	17.1	B2/2500		
BH	(60°-80°)	2699.6	25.9	B4/5000		G2/5000
BVH	(80°-90°)	313.6	3.0			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G3

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	985.8	985.8	985.8	985.8	985.8	985.8	985.8	985.8	985.8	985.8	985.8
2.5°	987.8	987.5	986.8	986.2	985.8	985.4	985.4	985.4	985.3	985.2	985.3
5°	987.8	987.4	987.0	986.4	986.0	985.4	985.4	985.4	985.3	985.1	985.4
7.5°	986.4	986.8	986.3	985.8	985.6	985.4	985.3	985.1	984.8	984.4	984.6
10°	986.8	988.2	987.2	986.2	985.8	985.4	984.8	984.1	983.9	983.8	983.4
12.5°	987.5	988.8	987.6	986.4	986.0	985.4	984.8	984.1	983.6	983.0	982.6
15°	989.5	990.5	989.5	988.5	987.5	986.4	985.8	985.1	984.1	983.1	982.6
17.5°	990.8	992.5	991.3	990.2	989.0	987.8	987.1	986.4	985.8	985.2	984.3
20°	993.2	994.9	993.9	992.8	992.2	991.6	991.0	990.6	990.0	989.5	988.3
22.5°	997.6	999.0	998.6	998.2	998.4	998.6	998.8	999.0	998.6	998.3	997.1
25°	1006.7	1006.8	1007.4	1008.0	1009.1	1010.1	1010.9	1011.8	1012.3	1012.8	1011.3
27.5°	1022.6	1023.9	1024.4	1025.0	1026.6	1028.3	1030.2	1032.1	1033.0	1034.0	1032.5
30°	1043.2	1043.2	1044.4	1045.6	1048.4	1051.3	1053.6	1056.0	1057.8	1059.7	1058.5
32.5°	1069.5	1071.2	1072.9	1074.6	1078.1	1081.6	1085.7	1089.8	1092.1	1094.5	1092.6
35°	1109.7	1111.7	1113.4	1115.1	1118.8	1122.5	1127.1	1131.6	1133.6	1135.6	1134.5
37.5°	1166.4	1166.4	1168.7	1171.1	1173.5	1175.8	1181.9	1188.0	1190.5	1193.0	1191.0
40°	1243.1	1243.4	1243.9	1244.4	1246.6	1248.8	1256.2	1263.6	1268.0	1272.4	1268.2
42.5°	1331.1	1334.8	1334.7	1334.5	1336.0	1337.6	1344.6	1351.7	1358.0	1364.2	1361.7
45°	1435.1	1434.4	1433.1	1431.8	1436.3	1440.9	1451.0	1461.1	1466.7	1472.2	1467.0
47.5°	1540.1	1539.1	1537.2	1535.4	1540.0	1544.5	1559.7	1574.9	1582.8	1590.8	1582.3
50°	1644.8	1648.8	1646.4	1644.1	1650.8	1657.6	1676.8	1696.0	1707.7	1719.4	1709.6
52.5°	1760.6	1763.6	1760.9	1758.2	1767.5	1776.8	1799.5	1822.4	1837.9	1853.4	1840.2
55°	1880.4	1876.7	1878.2	1879.8	1888.5	1897.2	1925.3	1953.3	1971.9	1990.4	1975.6
57.5°	1992.5	1993.8	1992.3	1990.8	2004.6	2018.5	2053.8	2089.0	2112.4	2135.6	2117.1
60°	2107.2	2107.6	2104.2	2100.8	2115.9	2130.9	2181.6	2232.2	2262.4	2292.6	2267.1
62.5°	2235.6	2235.2	2229.3	2223.4	2241.1	2258.9	2321.6	2384.4	2426.0	2467.5	2436.4
65°	2392.8	2388.8	2385.4	2382.0	2402.5	2422.9	2500.9	2578.9	2634.9	2691.0	2651.0
67.5°	2624.8	2621.8	2614.7	2607.6	2630.4	2653.1	2753.1	2853.0	2925.4	2997.8	2945.0
70°	2880.0	2874.3	2879.2	2884.1	2936.8	2989.4	3123.5	3257.4	3343.2	3429.0	3340.2
72°	2754.1	2756.4	2772.8	2789.2	2881.5	2973.9	3164.3	3354.7	3478.8	3602.8	3465.6
72.5°	2710.2	2712.2	2730.8	2749.4	2837.5	2925.6	3122.0	3318.2	3446.7	3575.2	3434.0
75°	2523.9	2529.2	2550.7	2572.2	2661.4	2750.7	2948.7	3146.8	3269.8	3392.8	3251.6
77.5°	2219.7	2236.6	2258.4	2280.1	2386.4	2492.8	2716.6	2940.4	3076.3	3212.2	3051.9
80°	1694.0	1688.0	1725.4	1763.0	1864.6	1966.2	2139.3	2312.5	2469.0	2625.5	2445.2
82.5°	658.3	672.8	750.5	828.2	934.6	1041.2	1196.3	1351.4	1492.4	1633.3	1483.2
85°	67.8	77.3	105.2	133.0	191.1	249.2	343.7	438.2	530.9	623.6	523.0
87.5°	27.4	30.0	38.7	47.3	49.5	51.6	62.4	73.2	72.8	72.2	71.2
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°	985.8	985.8	985.8	985.8	985.8	985.8	985.8	985.8
2.5°	985.4	985.8	986.2	986.1	986.1	986.6	987.2	986.5
5°	985.8	986.0	986.2	986.1	986.1	986.6	987.2	986.5
7.5°	984.8	984.8	984.8	985.3	985.8	986.0	986.2	985.8
10°	983.1	983.2	983.4	983.9	984.4	984.9	985.4	985.8
12.5°	982.0	982.2	982.4	982.9	983.4	983.9	984.4	985.1
15°	982.1	982.2	982.4	982.8	983.1	983.8	984.4	985.1
17.5°	983.4	983.1	982.8	983.1	983.4	984.2	985.1	985.8
20°	987.2	986.6	986.2	986.1	986.1	987.0	987.8	987.8
22.5°	996.0	994.2	992.5	992.2	991.8	992.0	992.2	992.5
25°	1009.8	1007.0	1004.4	1003.5	1002.6	1002.3	1002.0	1002.7
27.5°	1031.0	1027.9	1024.9	1023.0	1021.2	1020.2	1019.2	1019.5
30°	1057.4	1053.8	1050.2	1047.2	1044.2	1042.8	1041.5	1041.8
32.5°	1090.8	1086.6	1082.4	1078.3	1074.2	1072.4	1070.6	1070.9
35°	1133.3	1128.4	1123.5	1120.1	1116.8	1113.9	1111.0	1113.4
37.5°	1189.0	1184.5	1179.9	1177.7	1175.5	1173.0	1170.4	1170.8
40°	1264.0	1259.2	1254.5	1252.6	1250.8	1247.6	1244.4	1245.1
42.5°	1359.2	1352.1	1345.0	1341.6	1338.2	1336.7	1335.2	1336.2
45°	1461.8	1454.7	1447.6	1444.8	1441.8	1437.8	1433.8	1437.5
47.5°	1573.9	1564.9	1556.0	1550.9	1545.9	1547.2	1548.6	1545.5
50°	1699.8	1684.8	1669.8	1663.8	1658.0	1657.9	1657.9	1657.6
52.5°	1827.0	1806.3	1785.6	1780.5	1775.4	1774.2	1773.0	1771.7
55°	1960.8	1935.3	1909.8	1900.3	1890.8	1892.2	1893.6	1897.3
57.5°	2098.5	2064.9	2031.3	2020.5	2009.8	2010.6	2011.4	2017.5
60°	2241.6	2198.2	2154.9	2142.9	2130.9	2134.1	2137.4	2141.0
62.5°	2405.4	2352.9	2300.4	2284.4	2268.3	2272.4	2276.4	2286.2
65°	2611.0	2545.5	2480.0	2463.3	2446.6	2448.4	2450.3	2467.2
67.5°	2892.2	2804.9	2717.6	2702.3	2687.0	2689.6	2692.4	2719.7
70°	3251.4	3122.1	2992.8	2929.2	2865.5	2855.6	2845.6	2860.1
72°	3328.4	3145.7	2963.1	2869.2	2775.4	2760.7	2746.0	2747.4
72.5°	3292.9	3108.2	2923.6	2832.4	2741.3	2729.3	2717.3	2715.0
75°	3110.2	2929.6	2749.0	2654.9	2560.7	2537.9	2515.1	2515.1
77.5°	2891.5	2663.8	2436.0	2334.5	2232.9	2209.1	2185.3	2166.7
80°	2265.0	2060.9	1856.8	1753.6	1650.5	1612.4	1574.2	1551.6
82.5°	1333.2	1145.4	957.8	826.8	695.8	656.5	617.2	562.4
85°	422.4	325.0	227.6	177.6	127.6	103.1	78.6	68.9
87.5°	70.2	57.1	43.9	42.4	40.8	32.1	23.3	19.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)