

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: P143956

Luminaire Tested: **LDRL-5WQ-F04-E-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P143956
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33698)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: LDRL-5WQ-F04-E-7050
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE WIDE
Light Source: (28) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10387 lumens
Efficiency: N/A
Efficacy: 101.6 lumens/watt
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B4 - U0 - G2

Input Watts (W): 102.2
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

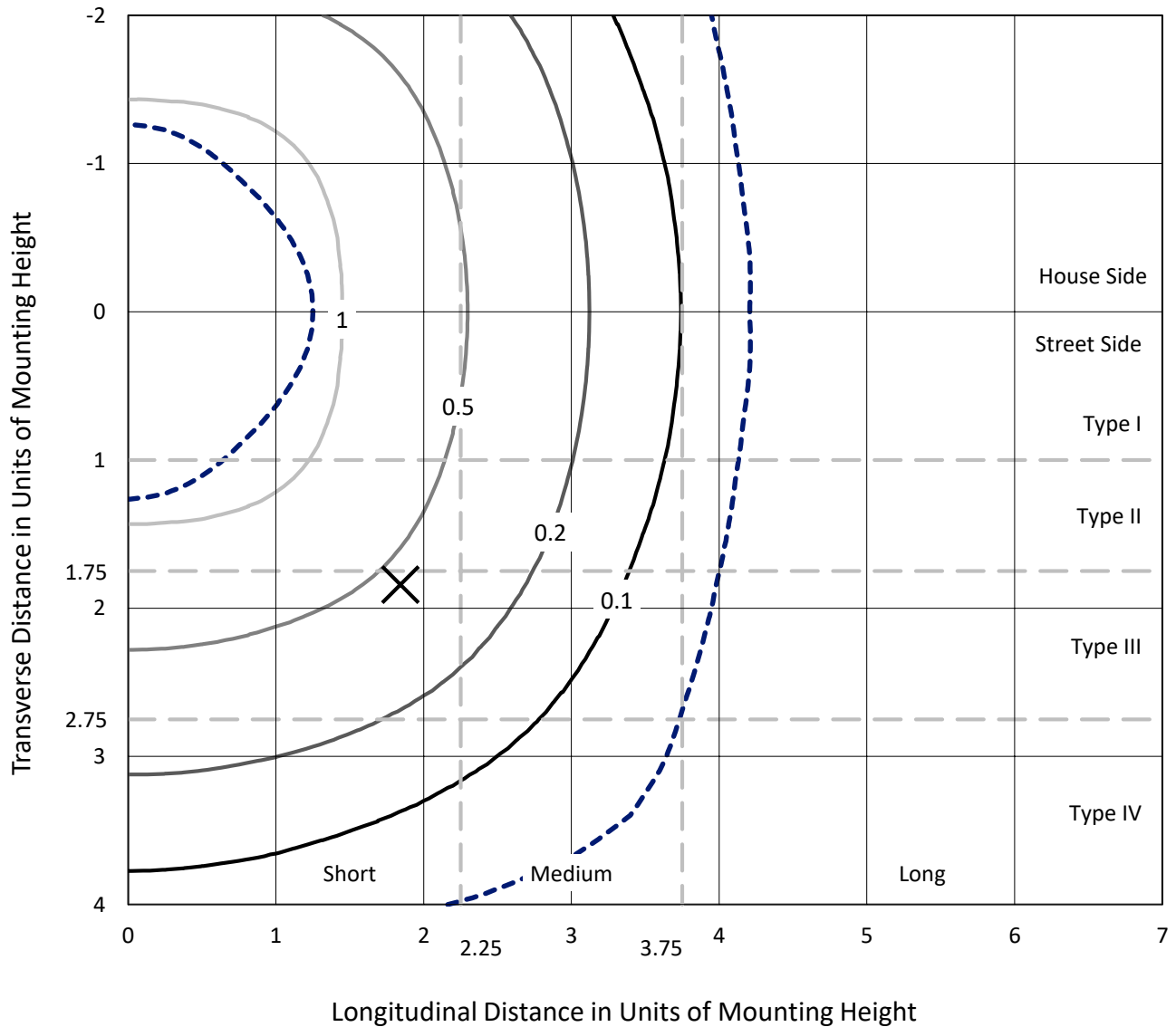


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Iso-Footcandle Lines of Horizontal Illumination

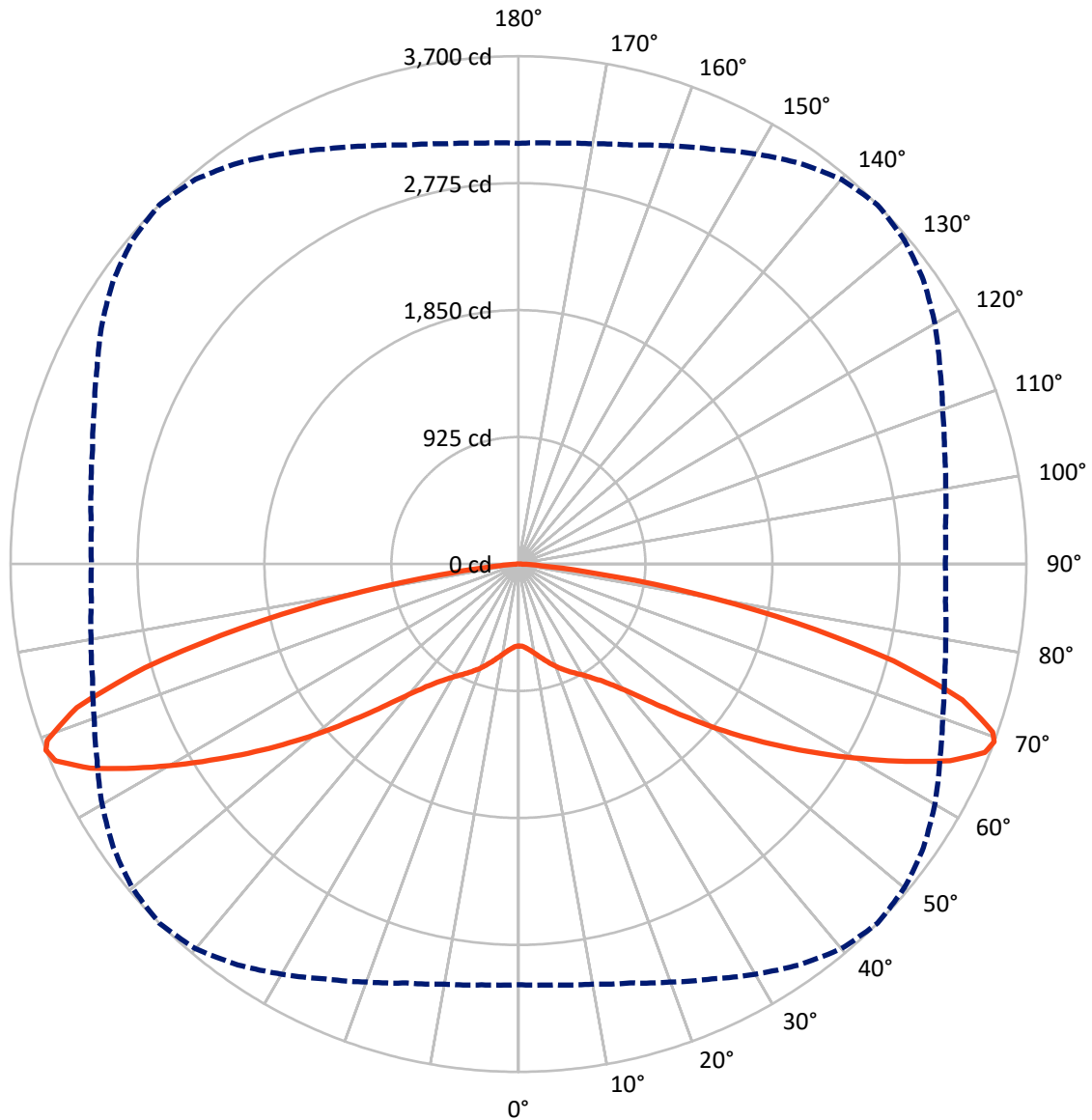
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 1.7 fc
 Type V - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5193.5	0.0	5193.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	5193.5	0.0	5193.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	10387.0	0.0	10387.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.2	0.6
10°-20°	207.5	2.0
20°-30°	400.1	3.9
30°-40°	655.7	6.3
40°-50°	1140.0	11.0
50°-60°	2025.1	19.5
60°-70°	3144.2	30.3
70°-80°	2505.1	24.1
80°-90°	249.1	2.4
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°	10387.0	100.0
0°-180°	10387.0	100.0



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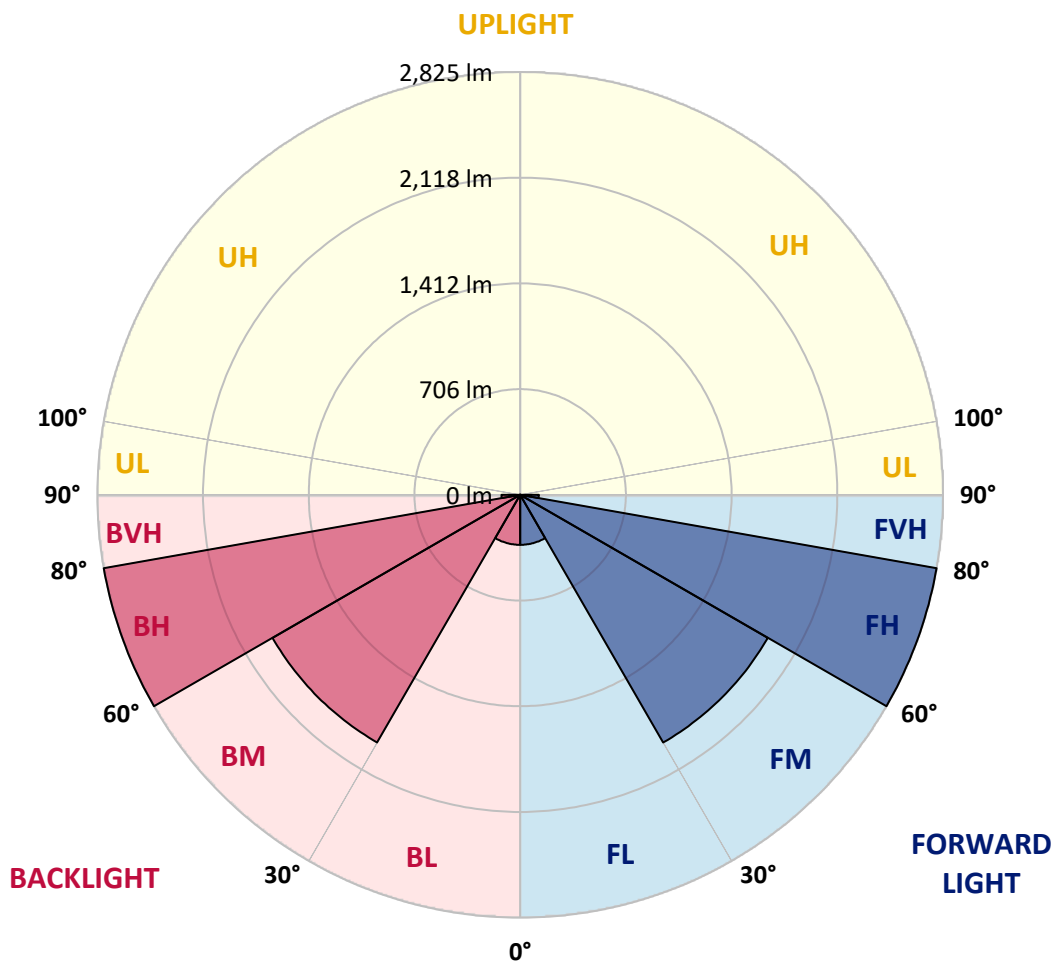
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	333.9	3.2			
FM (30°-60°)	1910.4	18.4			
FH (60°-80°)	2824.6	27.2			G2/5000
FVH (80°-90°)	124.5	1.2			G2/225
BL (0°-30°)	333.9	3.2	B1/500		
BM (30°-60°)	1910.4	18.4	B2/2500		
BH (60°-80°)	2824.6	27.2	B4/5000		G2/5000
BVH (80°-90°)	124.5	1.2			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G2

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0
2.5°	601.8	601.8	601.8	601.1	601.1	600.4	601.1	600.4	600.4	600.4	600.4
5°	617.3	616.0	616.0	615.3	616.7	616.7	615.3	616.0	615.3	616.0	616.0
7.5°	637.0	637.0	637.0	636.3	637.7	637.0	636.3	637.0	637.0	636.3	636.3
10°	661.4	662.1	661.4	661.4	663.4	662.8	663.4	663.4	664.1	663.4	663.4
12.5°	689.9	689.9	690.5	691.2	691.9	692.6	694.6	693.9	695.3	693.9	693.9
15°	723.1	724.4	723.1	723.1	725.1	726.5	727.1	727.1	728.5	727.8	726.5
17.5°	758.3	759.0	758.3	757.6	759.7	761.7	762.4	762.4	764.4	763.0	763.0
20°	794.2	794.9	793.5	792.9	795.6	795.6	796.9	797.6	799.6	800.3	798.3
22.5°	827.4	828.1	827.4	826.7	829.5	829.5	831.5	832.2	834.9	834.2	834.2
25°	860.0	860.0	859.3	859.3	862.0	862.7	864.7	866.1	868.8	868.8	868.8
27.5°	889.8	890.4	889.1	888.4	893.8	895.9	897.2	899.9	902.0	903.3	902.6
30°	923.7	923.7	923.0	925.0	928.4	931.1	933.8	937.9	941.9	940.6	940.6
32.5°	963.6	965.0	964.3	967.0	971.1	975.2	978.5	983.3	985.3	988.7	986.0
35°	1017.2	1019.9	1018.5	1021.2	1024.6	1027.3	1034.8	1039.5	1042.9	1045.0	1043.6
37.5°	1084.3	1082.9	1085.6	1086.3	1093.1	1096.5	1105.3	1112.0	1117.5	1119.5	1118.1
40°	1167.6	1165.6	1169.0	1172.4	1181.2	1184.6	1194.7	1204.9	1212.3	1215.0	1213.7
42.5°	1267.2	1269.9	1275.4	1280.1	1292.3	1301.8	1313.3	1328.2	1336.3	1339.7	1335.0
45°	1398.0	1393.3	1403.4	1415.6	1422.4	1443.4	1462.4	1478.0	1491.5	1497.0	1491.5
47.5°	1547.1	1546.4	1558.6	1573.5	1591.1	1610.8	1633.2	1653.5	1677.2	1678.6	1671.8
50°	1711.8	1725.3	1732.1	1747.0	1779.5	1803.9	1832.4	1862.9	1884.6	1891.4	1879.2
52.5°	1910.3	1920.5	1924.6	1949.6	1979.4	2009.3	2049.2	2085.8	2110.9	2113.6	2107.5
55°	2125.8	2134.0	2141.4	2171.9	2204.4	2230.9	2281.7	2317.6	2342.7	2352.2	2348.1
57.5°	2348.8	2356.2	2365.7	2398.9	2432.1	2469.4	2517.5	2559.5	2588.7	2606.3	2601.5
60°	2596.1	2596.1	2617.8	2651.0	2678.1	2722.2	2772.3	2821.1	2853.0	2880.7	2873.3
62.5°	2856.3	2863.8	2884.8	2911.9	2940.4	2981.0	3038.0	3096.2	3145.0	3166.0	3165.4
65°	3053.5	3067.1	3094.9	3126.0	3173.5	3221.6	3293.4	3365.9	3424.9	3455.4	3455.4
67.5°	3111.1	3119.9	3154.5	3201.9	3270.4	3347.0	3444.5	3545.5	3626.2	3666.1	3641.1
69°	3065.1	3077.9	3108.4	3159.9	3241.3	3334.8	3450.6	3565.2	3658.7	3700.0	3670.9
70°	3011.5	3025.8	3056.2	3107.1	3191.1	3290.7	3406.6	3529.9	3630.2	3665.5	3632.3
72.5°	2793.3	2810.9	2832.6	2876.7	2952.6	3046.1	3150.4	3258.9	3355.1	3382.9	3341.5
75°	2421.3	2424.7	2435.5	2468.0	2495.1	2561.6	2650.3	2736.4	2808.9	2825.2	2781.1
77.5°	1713.8	1695.5	1677.2	1705.0	1726.7	1812.1	1908.3	1978.8	2054.7	2077.7	2033.0
80°	751.5	744.7	770.5	807.1	902.6	959.6	1053.8	1154.7	1219.1	1294.3	1213.7
82.5°	148.4	156.5	180.9	223.6	275.8	347.0	408.6	478.4	541.5	569.9	540.8
85°	60.3	65.7	74.5	83.4	89.5	100.3	117.9	146.4	161.3	163.3	155.2
87.5°	25.1	29.1	39.3	46.8	47.4	45.4	46.8	48.1	39.3	31.9	40.0
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°	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0
2.5°	600.4	601.1	600.4	601.1	600.4	600.4	601.1	600.4
5°	615.3	616.0	615.3	614.6	614.0	614.6	614.6	614.6
7.5°	636.3	635.6	635.0	635.0	634.3	633.6	635.0	635.0
10°	662.1	661.4	660.0	660.0	659.4	659.4	659.4	659.4
12.5°	693.2	691.2	690.5	688.5	687.8	687.1	687.1	687.8
15°	725.8	723.7	723.1	719.7	719.7	719.0	719.0	719.0
17.5°	760.3	758.3	755.6	755.6	753.6	752.2	752.9	751.5
20°	795.6	792.9	791.5	790.8	788.1	788.1	788.1	787.4
22.5°	830.1	828.1	826.1	823.4	820.6	820.0	820.0	819.3
25°	865.4	862.0	857.9	855.2	852.5	850.5	850.5	850.5
27.5°	900.6	896.5	890.4	887.1	883.0	881.0	881.0	880.3
30°	937.9	933.1	927.7	923.0	917.6	915.5	914.8	913.5
32.5°	982.6	977.9	972.4	965.7	960.2	956.9	956.9	954.8
35°	1039.5	1034.1	1030.0	1021.2	1014.5	1009.0	1009.7	1011.1
37.5°	1114.1	1107.3	1103.9	1093.1	1084.3	1078.8	1078.8	1078.2
40°	1208.9	1202.2	1194.7	1184.6	1173.7	1166.3	1164.2	1164.2
42.5°	1329.6	1323.5	1313.3	1299.1	1286.2	1278.1	1271.3	1272.0
45°	1480.7	1473.2	1459.0	1441.4	1425.8	1414.3	1404.8	1404.8
47.5°	1664.3	1648.7	1629.1	1613.5	1587.1	1569.5	1562.7	1561.3
50°	1873.7	1844.6	1820.2	1797.8	1770.0	1751.8	1741.6	1738.9
52.5°	2093.3	2062.8	2032.3	2003.2	1969.3	1950.3	1934.0	1932.7
55°	2331.8	2293.2	2254.6	2226.1	2186.1	2166.5	2150.2	2140.7
57.5°	2575.1	2531.7	2504.0	2463.3	2421.3	2407.1	2391.5	2379.9
60°	2848.9	2801.4	2764.9	2722.2	2695.1	2664.6	2649.7	2640.8
62.5°	3128.8	3084.7	3038.0	2997.3	2959.3	2938.3	2918.0	2907.8
65°	3413.4	3340.9	3285.3	3229.1	3184.3	3146.4	3114.5	3110.5
67.5°	3588.2	3496.7	3403.9	3321.9	3256.2	3202.6	3170.1	3158.6
69°	3602.4	3502.8	3386.9	3288.7	3212.8	3161.3	3122.7	3110.5
70°	3563.1	3462.8	3340.9	3235.2	3156.5	3100.3	3068.4	3048.1
72.5°	3275.8	3187.7	3070.5	2966.1	2895.0	2829.2	2797.4	2789.3
75°	2702.5	2609.0	2501.2	2451.1	2401.6	2360.3	2338.6	2336.6
77.5°	1919.1	1823.6	1741.6	1675.9	1622.3	1595.9	1602.0	1579.6
80°	1098.5	973.8	874.9	816.6	737.3	689.9	636.3	674.9
82.5°	472.3	381.5	290.7	236.5	180.3	143.0	117.9	109.8
85°	132.1	107.7	90.1	82.7	74.5	66.4	56.2	52.2
87.5°	44.7	42.7	37.9	37.9	34.6	29.1	20.3	18.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)