

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: P143963

Luminaire Tested: **LDRL-5WQ-F05-E-8030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P143963  
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-F05-E-8030  
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE  
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE WIDE  
Light Source: (35) 3000K CCT, 80 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10679.4 lumens  
Efficiency: N/A  
Efficacy: 80.1 lumens/watt  
Luminous Opening: Rectangular (W 0.83' x L: 1' x H: 0')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B4 - U0 - G2

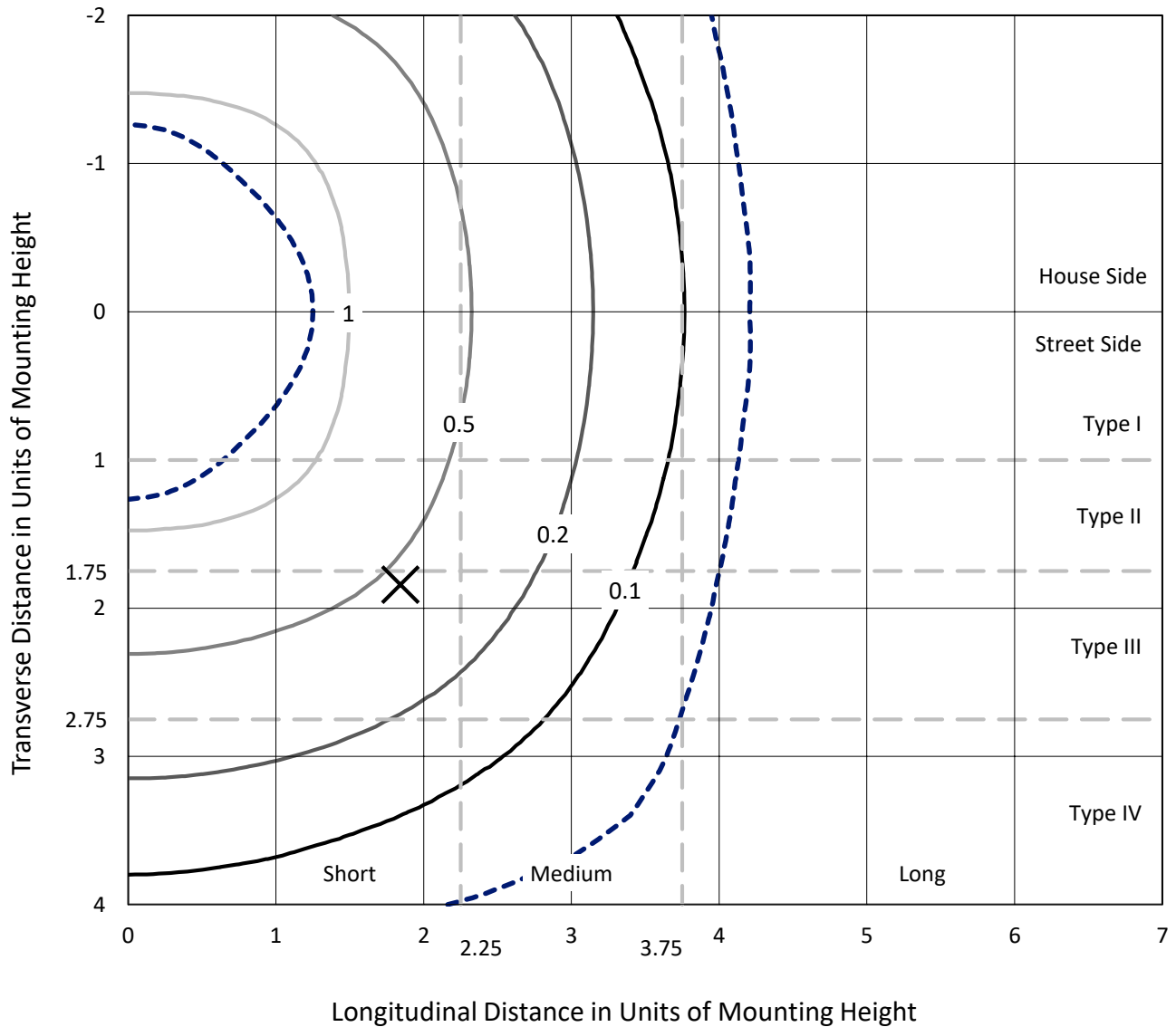
Input Watts (W): 133.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

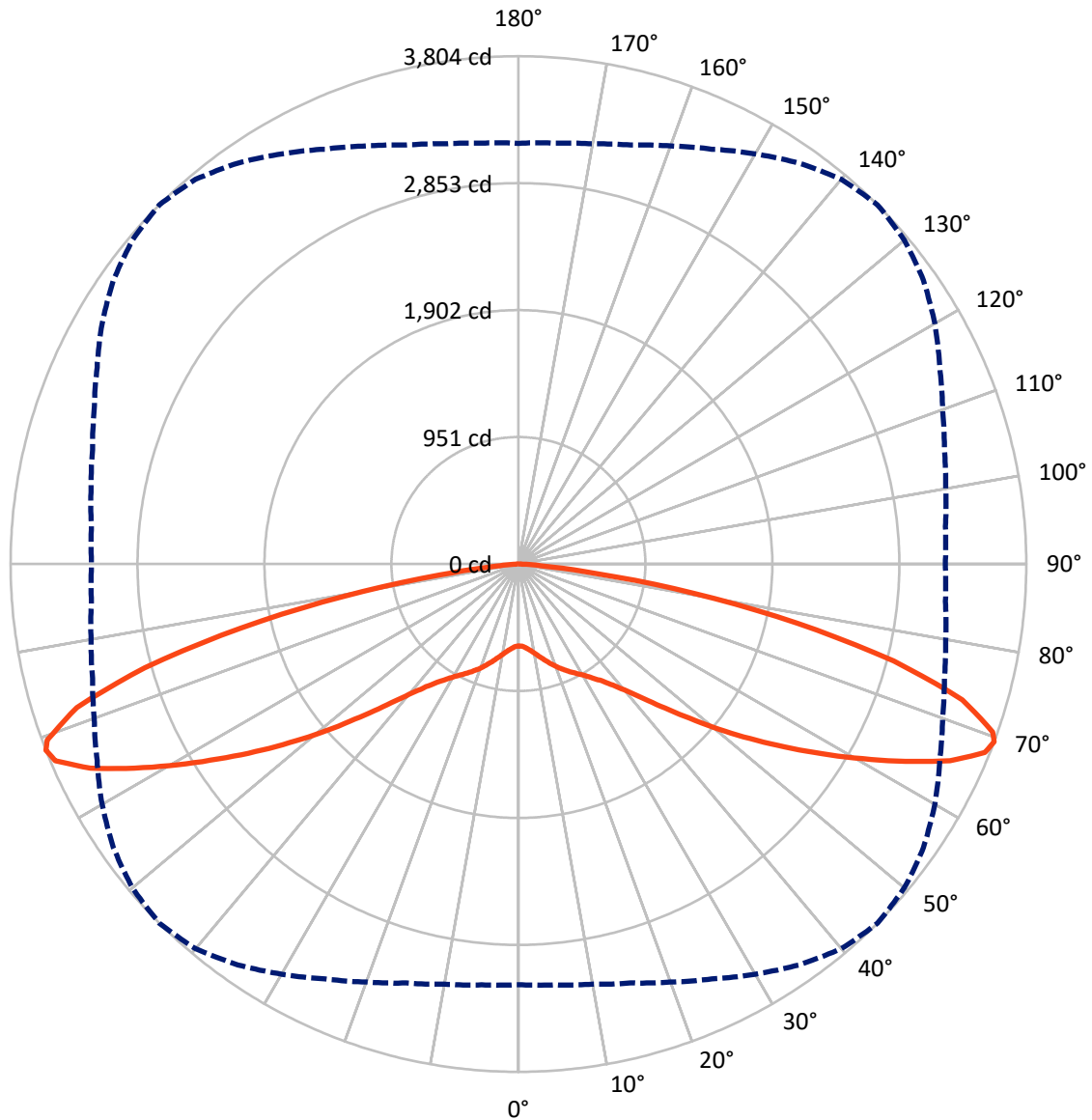
✕ Max cd  
 - - - 1/2 Max cd



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
<b>House Side</b>	Lumens	5339.7	0.0	5339.7
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	5339.7	0.0	5339.7
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	10679.4	0.0	10679.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	61.9	0.6
10°-20°	213.4	2.0
20°-30°	411.4	3.9
30°-40°	674.1	6.3
40°-50°	1172.1	11.0
50°-60°	2082.1	19.5
60°-70°	3232.7	30.3
70°-80°	2575.6	24.1
80°-90°	256.1	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°	10679.4	100.0
0°-180°	10679.4	100.0



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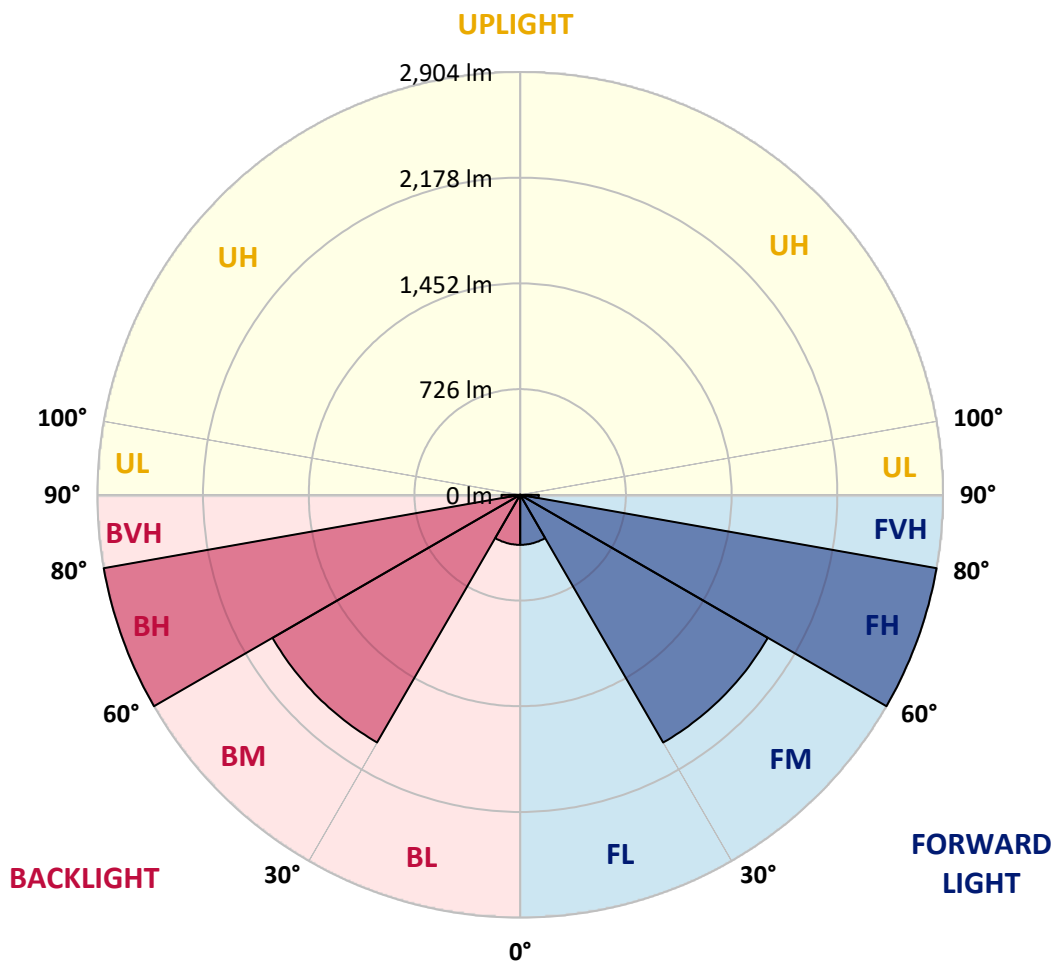
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	343.3	3.2			
FM	(30°-60°)	1964.2	18.4			
FH	(60°-80°)	2904.1	27.2			G2/5000
FVH	(80°-90°)	128.1	1.2			G2/225
BL	(0°-30°)	343.3	3.2	B1/500		
BM	(30°-60°)	1964.2	18.4	B2/2500		
BH	(60°-80°)	2904.1	27.2	B4/5000		G2/5000
BVH	(80°-90°)	128.1	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°	613.8	613.8	613.8	613.8	613.8	613.8	613.8	613.8	613.8	613.8	613.8
2.5°	618.7	618.7	618.7	618.0	618.0	617.3	618.0	617.3	617.3	617.3	617.3
5°	634.7	633.3	633.3	632.6	634.0	634.0	632.6	633.3	632.6	633.3	633.3
7.5°	654.9	654.9	654.9	654.2	655.6	654.9	654.2	654.9	654.9	654.2	654.2
10°	680.0	680.7	680.0	680.0	682.1	681.4	682.1	682.1	682.8	682.1	682.1
12.5°	709.3	709.3	710.0	710.7	711.4	712.1	714.2	713.5	714.9	713.5	713.5
15°	743.4	744.8	743.4	743.4	745.5	746.9	747.6	747.6	749.0	748.3	746.9
17.5°	779.6	780.3	779.6	779.0	781.0	783.1	783.8	783.8	785.9	784.5	784.5
20°	816.6	817.3	815.9	815.2	818.0	818.0	819.4	820.1	822.1	822.8	820.8
22.5°	850.7	851.4	850.7	850.0	852.8	852.8	854.9	855.6	858.4	857.7	857.7
25°	884.2	884.2	883.5	883.5	886.2	886.9	889.0	890.4	893.2	893.2	893.2
27.5°	914.8	915.5	914.1	913.4	919.0	921.1	922.5	925.3	927.4	928.7	928.1
30°	949.7	949.7	949.0	951.0	954.5	957.3	960.1	964.3	968.5	967.1	967.1
32.5°	990.8	992.2	991.5	994.2	998.4	1002.6	1006.1	1011.0	1013.1	1016.5	1013.8
35°	1045.8	1048.6	1047.2	1050.0	1053.5	1056.3	1063.9	1068.8	1072.3	1074.4	1073.0
37.5°	1114.8	1113.4	1116.2	1116.9	1123.8	1127.3	1136.4	1143.3	1148.9	1151.0	1149.6
40°	1200.5	1198.4	1201.9	1205.4	1214.4	1217.9	1228.3	1238.8	1246.5	1249.2	1247.9
42.5°	1302.9	1305.7	1311.3	1316.1	1328.7	1338.4	1350.3	1365.6	1374.0	1377.4	1372.6
45°	1437.4	1432.5	1442.9	1455.5	1462.4	1484.0	1503.6	1519.6	1533.5	1539.1	1533.5
47.5°	1590.6	1590.0	1602.5	1617.8	1635.9	1656.1	1679.1	1700.0	1724.4	1725.8	1718.8
50°	1760.0	1773.9	1780.9	1796.2	1829.6	1854.7	1884.0	1915.3	1937.6	1944.6	1932.0
52.5°	1964.1	1974.5	1978.7	2004.5	2035.2	2065.8	2106.9	2144.6	2170.3	2173.1	2166.8
55°	2185.7	2194.0	2201.7	2233.0	2266.5	2293.7	2345.9	2382.8	2408.6	2418.4	2414.2
57.5°	2414.9	2422.5	2432.3	2466.4	2500.6	2538.9	2588.4	2631.6	2661.5	2679.6	2674.8
60°	2669.2	2669.2	2691.5	2725.6	2753.5	2798.8	2850.3	2900.5	2933.3	2961.8	2954.2
62.5°	2936.7	2944.4	2966.0	2993.9	3023.1	3064.9	3123.5	3183.4	3233.5	3255.1	3254.5
65°	3139.5	3153.4	3182.0	3214.0	3262.8	3312.3	3386.1	3460.7	3521.3	3552.7	3552.7
67.5°	3198.7	3207.8	3243.3	3292.1	3362.4	3441.2	3541.5	3645.3	3728.2	3769.3	3743.6
69°	3151.3	3164.6	3195.9	3248.9	3332.5	3428.6	3547.8	3665.5	3761.7	3804.2	3774.2
70°	3096.3	3110.9	3142.3	3194.5	3280.9	3383.3	3502.5	3629.3	3732.4	3768.6	3734.5
72.5°	2871.9	2890.1	2912.4	2957.6	3035.7	3131.8	3239.1	3350.6	3449.5	3478.1	3435.6
75°	2489.4	2492.9	2504.1	2537.5	2565.4	2633.7	2724.9	2813.4	2888.0	2904.7	2859.4
77.5°	1762.0	1743.2	1724.4	1753.0	1775.3	1863.1	1962.0	2034.5	2112.5	2136.2	2090.2
80°	772.7	765.7	792.2	829.8	928.1	986.6	1083.4	1187.2	1253.4	1330.8	1247.9
82.5°	152.6	160.9	186.0	229.9	283.6	356.7	420.1	491.9	556.7	586.0	556.0
85°	62.0	67.6	76.6	85.7	92.0	103.1	121.2	150.5	165.8	167.9	159.6
87.5°	25.8	30.0	40.4	48.1	48.8	46.7	48.1	49.5	40.4	32.7	41.1
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°	613.8	613.8	613.8	613.8	613.8	613.8	613.8	613.8
2.5°	617.3	618.0	617.3	618.0	617.3	617.3	618.0	617.3
5°	632.6	633.3	632.6	631.9	631.2	631.9	631.9	631.9
7.5°	654.2	653.5	652.8	652.8	652.1	651.4	652.8	652.8
10°	680.7	680.0	678.6	678.6	677.9	677.9	677.9	677.9
12.5°	712.8	710.7	710.0	707.9	707.2	706.5	706.5	707.2
15°	746.2	744.1	743.4	739.9	739.9	739.2	739.2	739.2
17.5°	781.7	779.6	776.9	776.9	774.8	773.4	774.1	772.7
20°	818.0	815.2	813.8	813.1	810.3	810.3	810.3	809.6
22.5°	853.5	851.4	849.3	846.5	843.7	843.1	843.1	842.4
25°	889.7	886.2	882.1	879.3	876.5	874.4	874.4	874.4
27.5°	926.0	921.8	915.5	912.0	907.8	905.8	905.8	905.1
30°	964.3	959.4	953.8	949.0	943.4	941.3	940.6	939.2
32.5°	1010.3	1005.4	999.8	992.8	987.3	983.8	983.8	981.7
35°	1068.8	1063.2	1059.0	1050.0	1043.0	1037.4	1038.1	1039.5
37.5°	1145.4	1138.5	1135.0	1123.8	1114.8	1109.2	1109.2	1108.5
40°	1243.0	1236.0	1228.3	1217.9	1206.7	1199.1	1197.0	1197.0
42.5°	1367.0	1360.7	1350.3	1335.6	1322.4	1314.0	1307.1	1307.8
45°	1522.4	1514.7	1500.1	1482.0	1465.9	1454.1	1444.3	1444.3
47.5°	1711.2	1695.2	1675.0	1658.9	1631.8	1613.6	1606.7	1605.3
50°	1926.5	1896.5	1871.4	1848.4	1819.9	1801.1	1790.6	1787.8
52.5°	2152.2	2120.9	2089.5	2059.6	2024.7	2005.2	1988.5	1987.1
55°	2397.5	2357.8	2318.0	2288.8	2247.7	2227.5	2210.7	2201.0
57.5°	2647.6	2603.0	2574.4	2532.6	2489.4	2474.8	2458.8	2446.9
60°	2929.1	2880.3	2842.7	2798.8	2770.9	2739.6	2724.2	2715.2
62.5°	3216.8	3171.5	3123.5	3081.7	3042.6	3021.0	3000.1	2989.7
65°	3509.5	3434.9	3377.8	3319.9	3274.0	3234.9	3202.2	3198.0
67.5°	3689.2	3595.2	3499.7	3415.4	3347.8	3292.8	3259.3	3247.5
69°	3703.8	3601.4	3482.3	3381.3	3303.2	3250.3	3210.6	3198.0
70°	3663.4	3560.3	3434.9	3326.2	3245.4	3187.6	3154.8	3133.9
72.5°	3368.0	3277.4	3156.9	3049.6	2976.5	2908.9	2876.1	2867.8
75°	2778.6	2682.4	2571.7	2520.1	2469.2	2426.7	2404.4	2402.3
77.5°	1973.2	1874.9	1790.6	1723.0	1668.0	1640.8	1647.1	1624.1
80°	1129.4	1001.2	899.5	839.6	758.0	709.3	654.2	693.9
82.5°	485.6	392.3	298.9	243.2	185.3	147.0	121.2	112.9
85°	135.9	110.8	92.7	85.0	76.6	68.3	57.8	53.6
87.5°	46.0	43.9	39.0	39.0	35.5	30.0	20.9	18.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)