

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: P144255

Luminaire Tested: **LDRL-5XQ-F04-E**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P144255  
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-F04-E  
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE  
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE EXTRA WIDE  
Light Source: (28) 4000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10210.5 lumens  
Efficiency: N/A  
Efficacy: 99.9 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

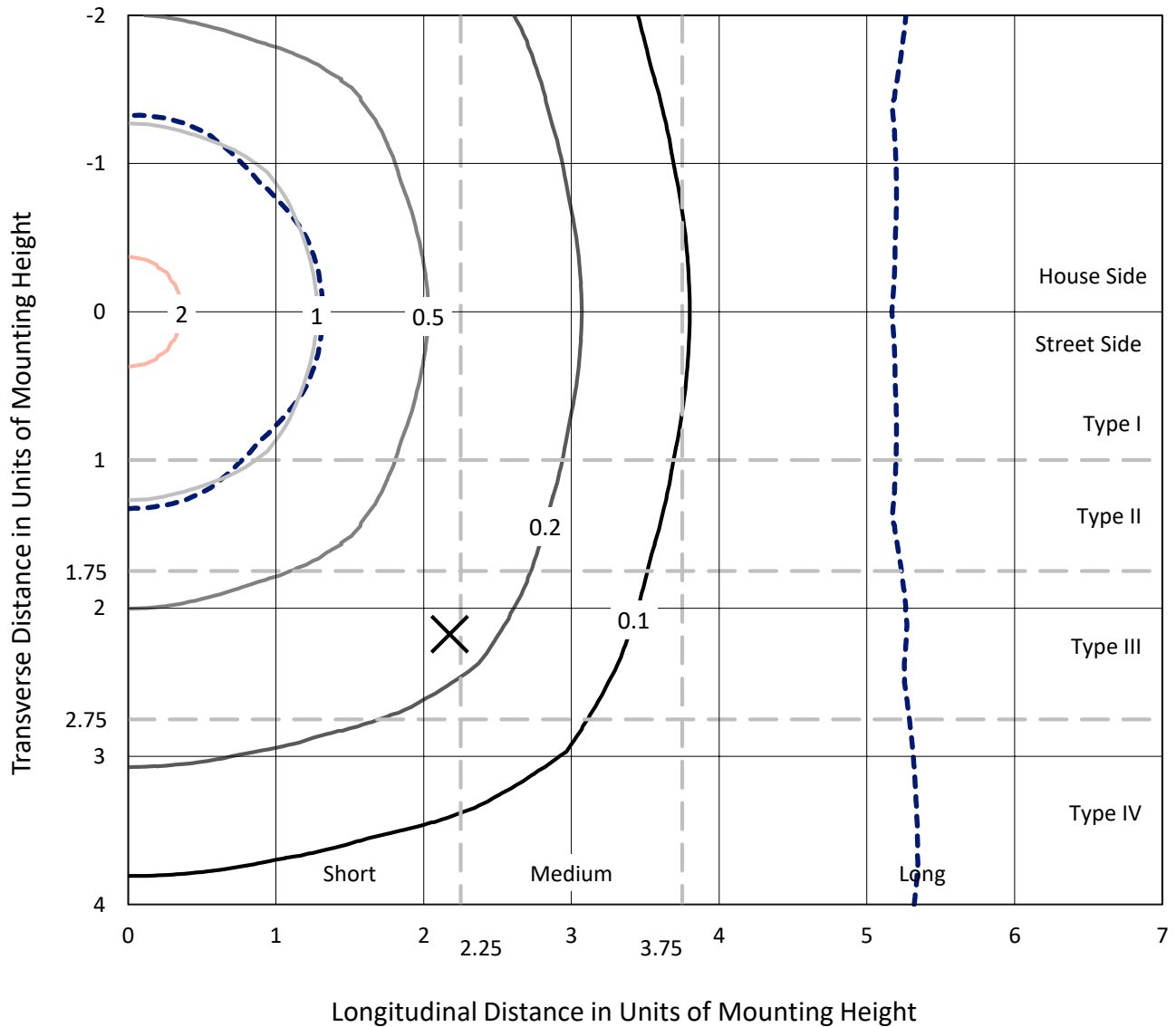
Input Watts (W): 102.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

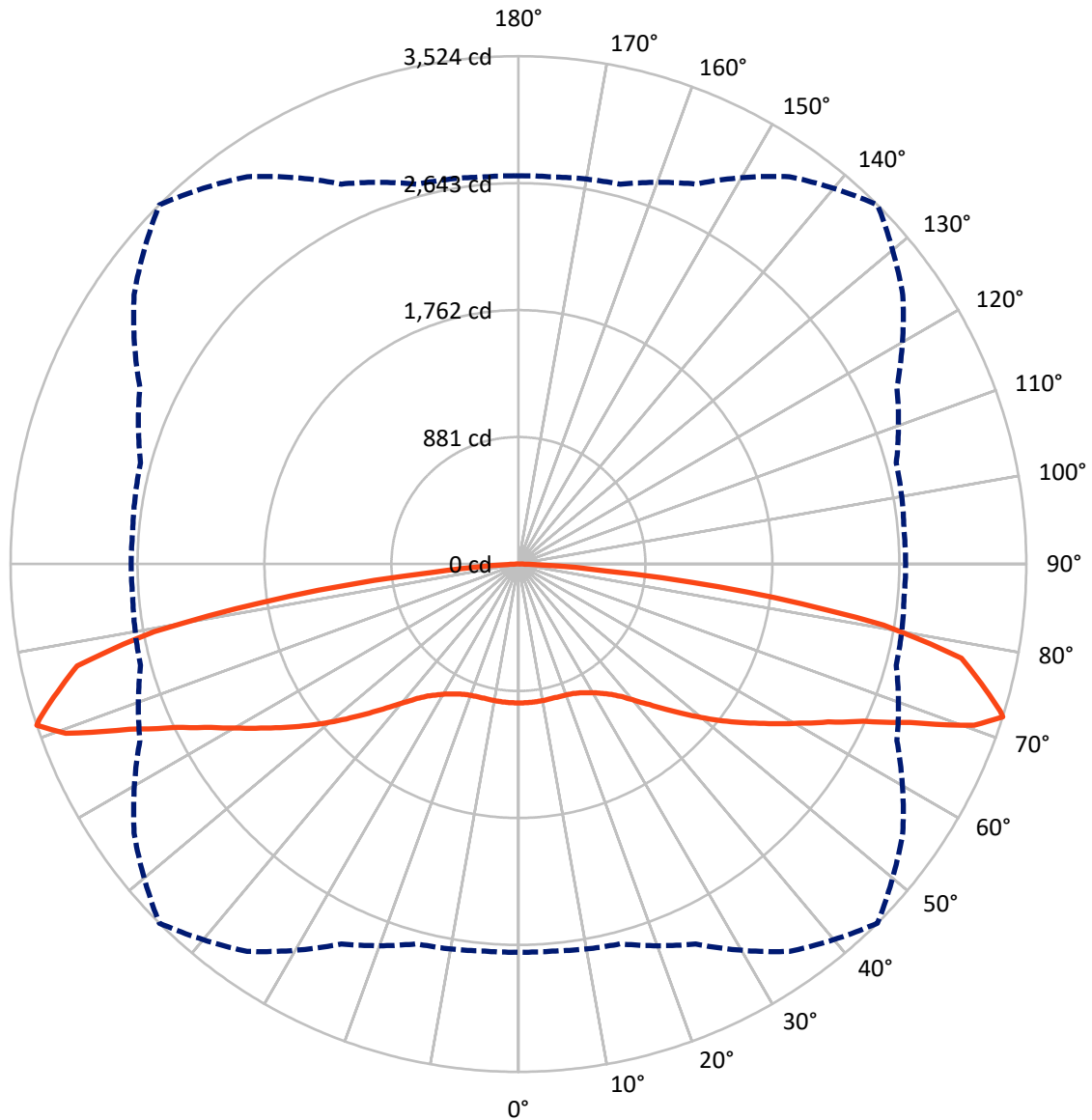
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 2.4 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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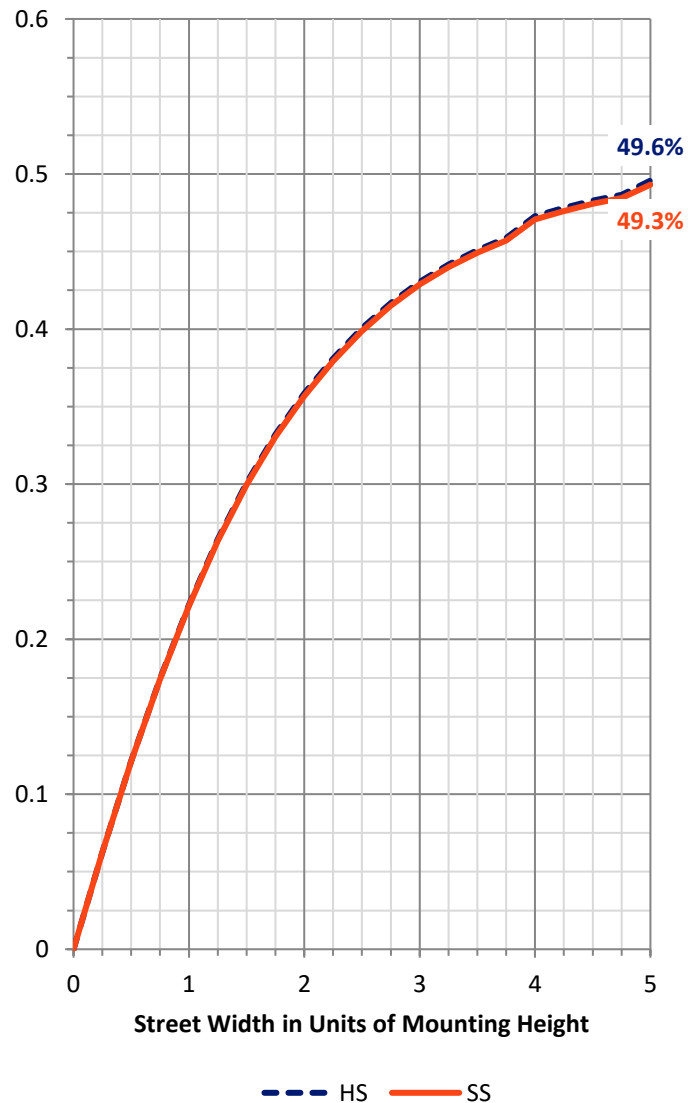
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5105.2	0.0	5105.2
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	5105.2	0.0	5105.2
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	10210.5	0.0	10210.5
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	92.0	0.9
10°-20°	273.4	2.7
20°-30°	459.2	4.5
30°-40°	698.9	6.8
40°-50°	1104.9	10.8
50°-60°	1687.5	16.5
60°-70°	2472.3	24.2
70°-80°	2808.7	27.5
80°-90°	613.5	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°	10210.5	100.0
0°-180°	10210.5	100.0



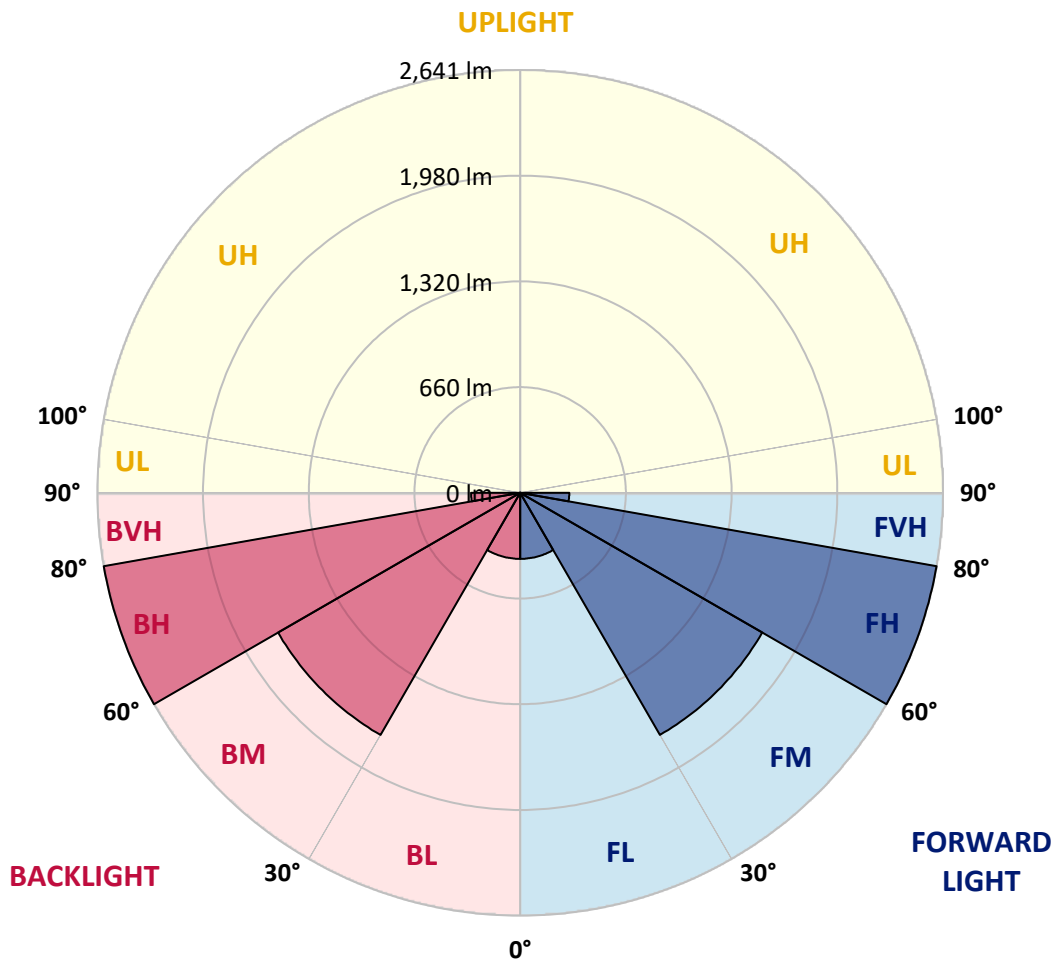
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	412.3	4.0			
FM (30°-60°)	1745.7	17.1			
FH (60°-80°)	2640.5	25.9			G2/5000
FVH (80°-90°)	306.8	3.0			G3/500
BL (0°-30°)	412.3	4.0	B1/500		
BM (30°-60°)	1745.7	17.1	B2/2500		
BH (60°-80°)	2640.5	25.9	B4/5000		G2/5000
BVH (80°-90°)	306.8	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°	964.2	964.2	964.2	964.2	964.2	964.2	964.2	964.2	964.2	964.2	964.2
2.5°	966.2	965.8	965.2	964.6	964.2	963.9	963.9	963.9	963.7	963.6	963.7
5°	966.2	965.9	965.4	964.8	964.4	963.9	963.9	963.8	963.7	963.6	963.9
7.5°	964.9	965.2	964.7	964.2	964.0	963.9	963.7	963.6	963.2	962.8	963.0
10°	965.2	966.6	965.5	964.5	964.2	963.9	963.2	962.6	962.4	962.2	961.9
12.5°	965.8	967.2	966.0	964.8	964.4	963.8	963.2	962.6	962.0	961.6	961.1
15°	967.8	968.8	967.8	966.8	965.8	964.8	964.2	963.6	962.6	961.6	961.1
17.5°	969.2	970.8	969.6	968.5	967.3	966.2	965.5	964.9	964.2	963.6	962.7
20°	971.4	973.2	972.2	971.2	970.5	969.8	969.3	968.8	968.3	967.8	966.7
22.5°	975.8	977.1	976.8	976.4	976.6	976.8	976.9	977.1	976.8	976.4	975.2
25°	984.7	984.7	985.4	986.0	987.0	988.0	988.8	989.6	990.1	990.6	989.1
27.5°	1000.2	1001.5	1002.0	1002.5	1004.2	1005.8	1007.6	1009.4	1010.4	1011.4	1010.0
30°	1020.4	1020.4	1021.5	1022.6	1025.4	1028.2	1030.6	1032.9	1034.7	1036.5	1035.4
32.5°	1046.1	1047.8	1049.4	1051.0	1054.5	1058.0	1062.0	1065.9	1068.2	1070.6	1068.7
35°	1085.4	1087.4	1089.0	1090.7	1094.3	1098.0	1102.4	1106.8	1108.8	1110.8	1109.7
37.5°	1140.9	1140.8	1143.2	1145.4	1147.8	1150.2	1156.1	1162.0	1164.5	1167.0	1165.0
40°	1215.8	1216.2	1216.6	1217.2	1219.3	1221.4	1228.7	1236.0	1240.3	1244.6	1240.4
42.5°	1302.0	1305.6	1305.5	1305.4	1306.8	1308.3	1315.2	1322.2	1328.3	1334.4	1331.9
45°	1403.7	1403.1	1401.8	1400.4	1404.9	1409.3	1419.2	1429.2	1434.6	1440.0	1434.9
47.5°	1506.4	1505.4	1503.6	1501.8	1506.2	1510.7	1525.6	1540.4	1548.2	1556.0	1547.7
50°	1608.8	1612.8	1610.4	1608.2	1614.8	1621.4	1640.2	1659.0	1670.4	1681.8	1672.2
52.5°	1722.0	1725.0	1722.4	1719.8	1728.8	1737.9	1760.2	1782.4	1797.6	1812.8	1800.0
55°	1839.2	1835.6	1837.1	1838.6	1847.2	1855.8	1883.2	1910.6	1928.8	1946.9	1932.4
57.5°	1948.9	1950.2	1948.7	1947.2	1960.8	1974.4	2008.8	2043.4	2066.1	2088.9	2070.8
60°	2061.2	2061.5	2058.2	2054.9	2069.6	2084.3	2133.8	2183.3	2212.9	2242.4	2217.5
62.5°	2186.6	2186.4	2180.6	2174.8	2192.1	2209.4	2270.9	2332.3	2372.9	2413.5	2383.1
65°	2340.5	2336.6	2333.2	2330.0	2349.9	2369.9	2446.2	2522.5	2577.3	2632.1	2593.0
67.5°	2567.4	2564.4	2557.5	2550.6	2572.8	2595.1	2692.8	2790.6	2861.4	2932.2	2880.6
70°	2817.0	2811.4	2816.2	2821.0	2872.5	2924.0	3055.1	3186.2	3270.1	3354.0	3267.1
72°	2693.8	2696.2	2712.2	2728.2	2818.5	2908.8	3095.1	3281.3	3402.6	3524.0	3389.8
72.5°	2651.0	2652.9	2671.0	2689.2	2775.4	2861.6	3053.6	3245.6	3371.3	3496.9	3358.9
75°	2468.6	2474.0	2494.9	2515.8	2603.2	2690.6	2884.2	3077.9	3198.3	3318.6	3180.4
77.5°	2171.1	2187.6	2209.0	2230.2	2334.3	2438.3	2657.2	2876.1	3009.0	3142.0	2985.1
80°	1657.0	1651.0	1687.7	1724.4	1823.8	1923.2	2092.5	2262.0	2415.0	2568.0	2391.7
82.5°	643.9	658.2	734.1	810.0	914.2	1018.4	1170.1	1321.8	1459.7	1597.6	1450.8
85°	66.4	75.6	102.8	130.1	186.9	243.7	336.2	428.6	519.3	609.9	511.5
87.5°	26.8	29.4	37.8	46.2	48.4	50.5	61.1	71.6	71.2	70.7	69.7
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°	964.2	964.2	964.2	964.2	964.2	964.2	964.2	964.2
2.5°	963.9	964.2	964.6	964.6	964.6	965.0	965.6	964.9
5°	964.2	964.4	964.6	964.6	964.6	965.0	965.6	964.9
7.5°	963.2	963.2	963.2	963.7	964.2	964.4	964.6	964.2
10°	961.6	961.7	961.9	962.4	962.9	963.4	963.9	964.2
12.5°	960.6	960.8	960.9	961.4	961.9	962.4	962.9	963.6
15°	960.6	960.8	961.0	961.3	961.6	962.2	962.9	963.6
17.5°	961.9	961.6	961.2	961.6	961.9	962.7	963.6	964.2
20°	965.6	965.0	964.5	964.5	964.6	965.4	966.2	966.2
22.5°	974.1	972.4	970.8	970.5	970.2	970.3	970.5	970.8
25°	987.6	985.0	982.4	981.6	980.8	980.4	980.0	980.7
27.5°	1008.5	1005.5	1002.6	1000.7	998.9	997.9	996.9	997.2
30°	1034.2	1030.7	1027.2	1024.3	1021.4	1020.0	1018.6	1019.0
32.5°	1066.9	1062.8	1058.6	1054.7	1050.8	1048.9	1047.1	1047.4
35°	1108.6	1103.8	1098.9	1095.6	1092.3	1089.5	1086.8	1089.0
37.5°	1163.0	1158.6	1154.1	1152.0	1149.8	1147.3	1144.8	1145.2
40°	1236.3	1231.7	1227.1	1225.2	1223.4	1220.3	1217.2	1217.8
42.5°	1329.4	1322.5	1315.6	1312.2	1308.9	1307.4	1305.9	1307.0
45°	1429.8	1422.9	1415.9	1413.1	1410.3	1406.4	1402.4	1406.0
47.5°	1539.4	1530.7	1522.0	1517.0	1512.0	1513.4	1514.7	1511.7
50°	1662.6	1647.9	1633.2	1627.4	1621.6	1621.7	1621.7	1621.3
52.5°	1787.1	1766.8	1746.5	1741.5	1736.6	1735.4	1734.2	1732.9
55°	1917.8	1892.9	1868.0	1858.8	1849.5	1850.8	1852.2	1855.8
57.5°	2052.6	2019.7	1986.8	1976.3	1965.8	1966.6	1967.4	1973.3
60°	2192.6	2150.2	2107.8	2096.0	2084.2	2087.4	2090.6	2094.2
62.5°	2352.7	2301.4	2250.0	2234.4	2218.7	2222.7	2226.6	2236.2
65°	2553.8	2489.8	2425.8	2409.4	2393.0	2394.8	2396.6	2413.2
67.5°	2828.9	2743.6	2658.2	2643.2	2628.1	2630.8	2633.4	2660.2
70°	3180.2	3053.8	2927.3	2865.1	2802.9	2793.1	2783.4	2797.5
72°	3255.6	3076.9	2898.2	2806.4	2714.6	2700.3	2685.9	2687.2
72.5°	3220.9	3040.3	2859.6	2770.5	2681.3	2669.6	2657.9	2655.5
75°	3042.2	2865.6	2688.9	2596.8	2504.6	2482.4	2460.1	2460.1
77.5°	2828.2	2605.5	2382.8	2283.4	2184.0	2160.7	2137.4	2119.3
80°	2215.4	2015.8	1816.2	1715.3	1614.4	1577.1	1539.8	1517.6
82.5°	1304.0	1120.4	936.8	808.7	680.6	642.1	603.6	550.1
85°	413.1	317.8	222.6	173.7	124.8	100.9	76.9	67.4
87.5°	68.7	55.8	42.9	41.4	40.0	31.4	22.8	19.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)