

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: P144245

Luminaire Tested: **LDRL-5XQ-F03-E**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P144245  
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-F03-E  
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE  
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE EXTRA WIDE  
Light Source: (21) 4000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7657.8 lumens  
Efficiency: N/A  
Efficacy: 97.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type V - Short - Non-Cutoff  
BUG Rating: B3 - U0 - G3

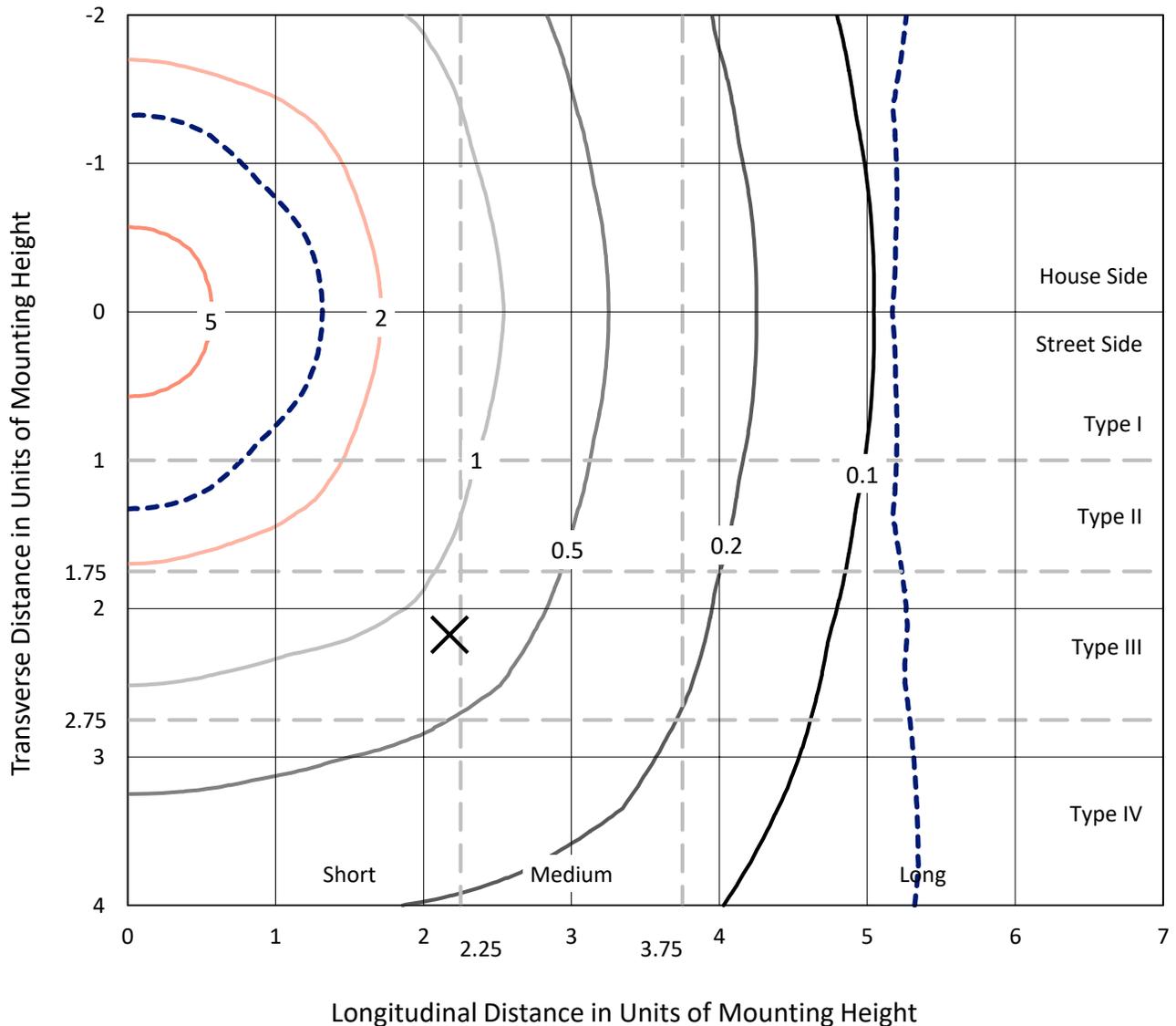
Input Watts (W): 78.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

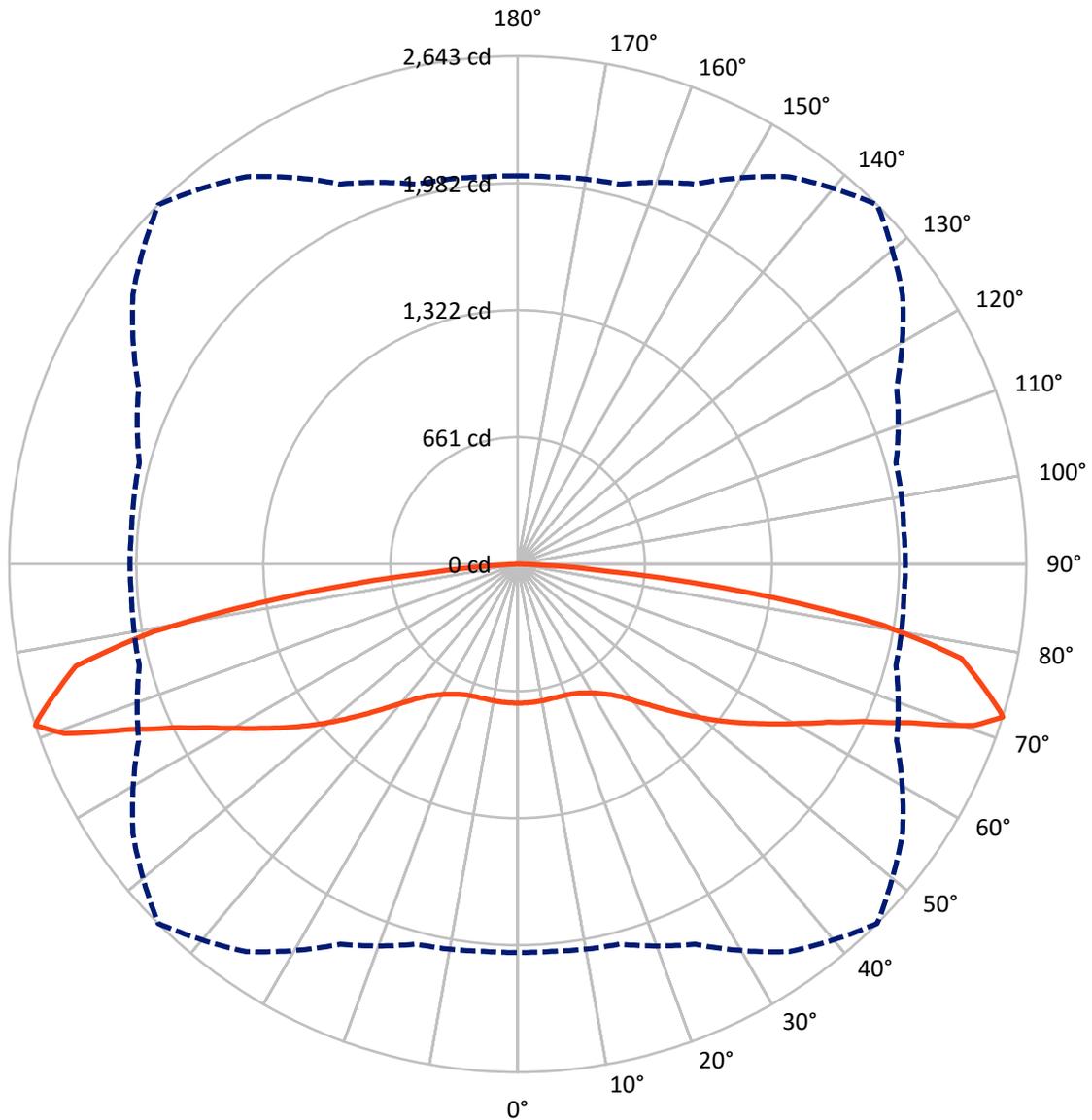
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.2 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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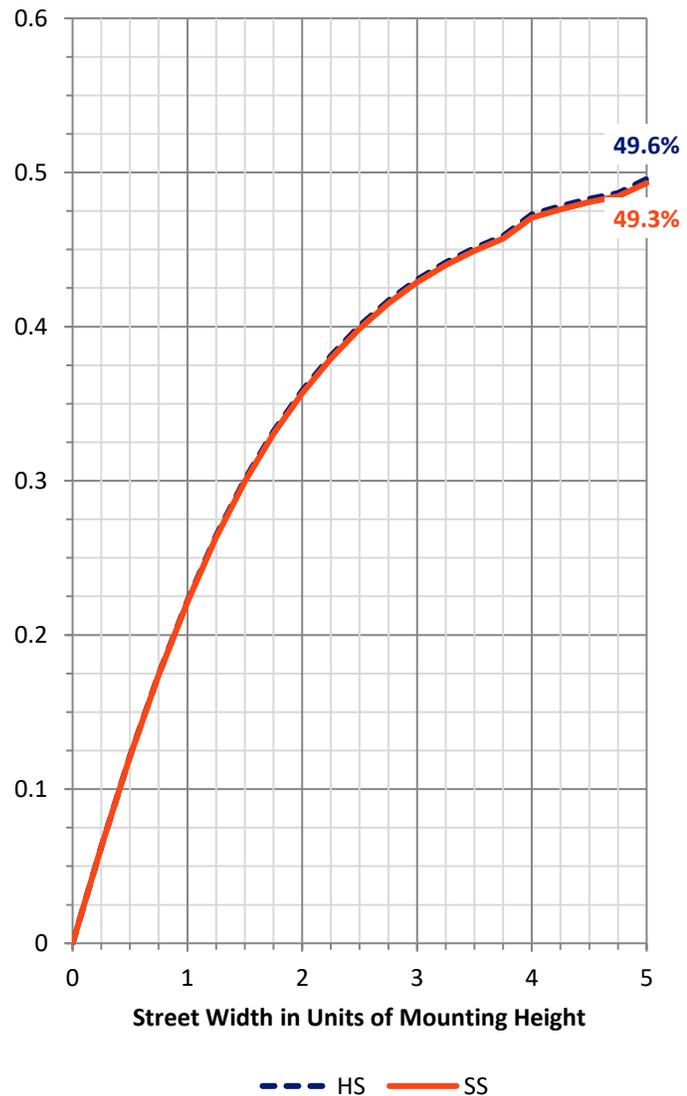
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3828.9	0.0	3828.9
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	3828.9	0.0	3828.9
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	7657.8	0.0	7657.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	69.0	0.9
10°-20°	205.0	2.7
20°-30°	344.4	4.5
30°-40°	524.2	6.8
40°-50°	828.7	10.8
50°-60°	1265.7	16.5
60°-70°	1854.2	24.2
70°-80°	2106.5	27.5
80°-90°	460.1	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°	7657.8	100.0
0°-180°	7657.8	100.0



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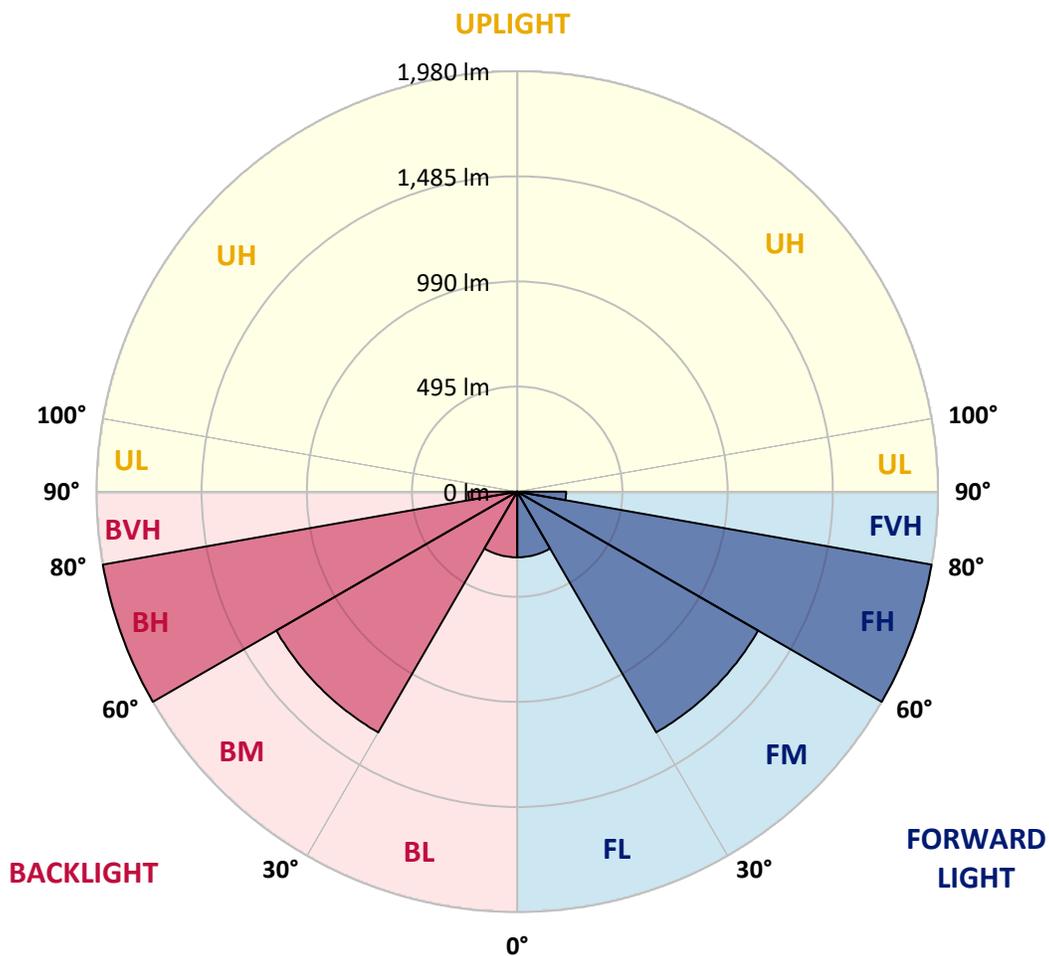
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	309.2	4.0			
FM	(30°-60°)	1309.2	17.1			
FH	(60°-80°)	1980.4	25.9			G2/5000
FVH	(80°-90°)	230.1	3.0			G3/500
BL	(0°-30°)	309.2	4.0	B1/500		
BM	(30°-60°)	1309.2	17.1	B2/2500		
BH	(60°-80°)	1980.4	25.9	B3/2500		G2/5000
BVH	(80°-90°)	230.1	3.0			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	723.2	723.2	723.2	723.2	723.2	723.2	723.2	723.2	723.2	723.2	723.2
2.5°	724.6	724.4	723.9	723.4	723.2	722.9	722.9	722.9	722.8	722.6	722.8
5°	724.6	724.4	724.0	723.6	723.3	722.9	722.9	722.9	722.8	722.6	722.9
7.5°	723.6	723.9	723.5	723.2	723.0	722.9	722.8	722.6	722.4	722.2	722.3
10°	723.9	724.9	724.2	723.4	723.2	722.9	722.4	721.9	721.8	721.6	721.4
12.5°	724.4	725.4	724.5	723.6	723.3	722.9	722.4	721.9	721.5	721.2	720.8
15°	725.8	726.6	725.8	725.1	724.4	723.6	723.2	722.6	721.9	721.2	720.8
17.5°	726.8	728.1	727.2	726.4	725.5	724.6	724.2	723.6	723.2	722.6	722.0
20°	728.6	729.8	729.1	728.4	727.8	727.4	727.0	726.6	726.2	725.8	725.0
22.5°	731.8	732.8	732.6	732.4	732.5	732.6	732.7	732.8	732.6	732.4	731.5
25°	738.5	738.5	739.0	739.5	740.2	741.0	741.6	742.2	742.6	743.0	741.9
27.5°	750.2	751.2	751.5	751.9	753.1	754.3	755.7	757.0	757.8	758.6	757.4
30°	765.2	765.2	766.1	767.0	769.1	771.2	772.9	774.7	776.0	777.4	776.6
32.5°	784.6	785.8	787.1	788.3	790.9	793.4	796.4	799.4	801.2	802.9	801.5
35°	814.0	815.6	816.8	818.0	820.8	823.4	826.8	830.2	831.6	833.2	832.3
37.5°	855.6	855.7	857.4	859.1	860.8	862.6	867.0	871.5	873.4	875.2	873.7
40°	911.9	912.2	912.5	912.9	914.5	916.1	921.6	927.0	930.2	933.4	930.3
42.5°	976.6	979.2	979.1	979.0	980.1	981.2	986.4	991.6	996.2	1000.8	999.0
45°	1052.8	1052.3	1051.3	1050.3	1053.6	1057.0	1064.4	1071.9	1076.0	1080.0	1076.2
47.5°	1129.8	1129.1	1127.7	1126.4	1129.7	1133.0	1144.2	1155.3	1161.1	1166.9	1160.8
50°	1206.6	1209.6	1207.8	1206.1	1211.1	1216.0	1230.1	1244.2	1252.8	1261.3	1254.1
52.5°	1291.5	1293.8	1291.8	1289.8	1296.6	1303.4	1320.2	1336.8	1348.2	1359.6	1350.0
55°	1379.4	1376.8	1377.8	1379.0	1385.4	1391.8	1412.4	1433.0	1446.6	1460.2	1449.3
57.5°	1461.6	1462.6	1461.6	1460.4	1470.6	1480.8	1506.6	1532.5	1549.6	1566.7	1553.1
60°	1545.8	1546.1	1543.6	1541.2	1552.2	1563.2	1600.4	1637.6	1659.7	1681.8	1663.1
62.5°	1640.0	1639.8	1635.4	1631.1	1644.1	1657.1	1703.2	1749.2	1779.7	1810.2	1787.4
65°	1755.4	1752.4	1750.0	1747.4	1762.4	1777.4	1834.6	1891.8	1933.0	1974.0	1944.7
67.5°	1925.6	1923.3	1918.1	1913.0	1929.6	1946.4	2019.6	2093.0	2146.1	2199.2	2160.4
70°	2112.8	2108.6	2112.2	2115.8	2154.4	2193.0	2291.3	2389.6	2452.6	2515.4	2450.3
72°	2020.4	2022.2	2034.2	2046.2	2113.9	2181.6	2321.3	2461.0	2552.0	2643.0	2542.3
72.5°	1988.2	1989.7	2003.3	2017.0	2081.6	2146.2	2290.2	2434.2	2528.5	2622.7	2519.2
75°	1851.5	1855.4	1871.2	1886.9	1952.4	2017.9	2163.2	2308.4	2398.7	2489.0	2385.3
77.5°	1628.4	1640.8	1656.7	1672.7	1750.7	1828.8	1992.9	2157.1	2256.8	2356.4	2238.8
80°	1242.8	1238.3	1265.8	1293.2	1367.8	1442.4	1569.4	1696.4	1811.2	1926.0	1793.8
82.5°	483.0	493.6	550.6	607.5	685.6	763.8	877.6	991.4	1094.8	1198.2	1088.1
85°	49.8	56.7	77.1	97.6	140.2	182.8	252.1	321.5	389.5	457.4	383.6
87.5°	20.0	22.0	28.4	34.7	36.3	37.8	45.8	53.8	53.4	53.0	52.3
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°	723.2	723.2	723.2	723.2	723.2	723.2	723.2	723.2
2.5°	722.9	723.2	723.4	723.4	723.4	723.8	724.2	723.7
5°	723.2	723.3	723.4	723.4	723.4	723.8	724.2	723.7
7.5°	722.4	722.4	722.4	722.8	723.2	723.3	723.4	723.2
10°	721.2	721.3	721.4	721.8	722.2	722.6	723.0	723.2
12.5°	720.4	720.5	720.6	721.1	721.4	721.8	722.2	722.7
15°	720.4	720.5	720.6	720.9	721.2	721.7	722.2	722.7
17.5°	721.4	721.2	720.9	721.2	721.4	722.1	722.7	723.2
20°	724.2	723.8	723.4	723.4	723.4	724.0	724.6	724.6
22.5°	730.6	729.4	728.2	727.9	727.6	727.8	727.8	728.1
25°	740.8	738.8	736.8	736.2	735.6	735.3	735.0	735.5
27.5°	756.3	754.1	751.9	750.6	749.2	748.4	747.6	747.9
30°	775.7	773.1	770.4	768.2	766.0	765.0	764.0	764.3
32.5°	800.2	797.1	794.0	791.0	788.0	786.7	785.4	785.6
35°	831.4	827.8	824.2	821.7	819.2	817.2	815.0	816.8
37.5°	872.2	868.9	865.6	864.0	862.4	860.5	858.6	858.9
40°	927.2	923.8	920.3	918.9	917.6	915.2	912.8	913.4
42.5°	997.1	991.9	986.6	984.2	981.7	980.6	979.5	980.2
45°	1072.4	1067.1	1061.9	1059.8	1057.8	1054.8	1051.8	1054.5
47.5°	1154.6	1148.0	1141.4	1137.7	1134.0	1135.0	1136.0	1133.8
50°	1247.0	1235.9	1224.9	1220.6	1216.2	1216.2	1216.2	1216.0
52.5°	1340.4	1325.1	1309.8	1306.1	1302.4	1301.6	1300.7	1299.7
55°	1438.4	1419.7	1401.0	1394.1	1387.1	1388.1	1389.1	1391.8
57.5°	1539.4	1514.8	1490.1	1482.2	1474.3	1474.9	1475.5	1480.0
60°	1644.4	1612.6	1580.8	1572.0	1563.2	1565.6	1567.9	1570.6
62.5°	1764.6	1726.0	1687.6	1675.8	1664.0	1667.0	1670.0	1677.1
65°	1915.4	1867.4	1819.3	1807.0	1794.8	1796.1	1797.5	1809.9
67.5°	2121.7	2057.7	1993.6	1982.4	1971.1	1973.1	1975.1	1995.1
70°	2385.2	2290.4	2195.5	2148.8	2102.1	2094.8	2087.5	2098.2
72°	2441.6	2307.7	2173.7	2104.8	2036.0	2025.2	2014.4	2015.4
72.5°	2415.6	2280.2	2144.7	2077.9	2011.0	2002.2	1993.4	1991.7
75°	2281.7	2149.2	2016.6	1947.6	1878.5	1861.8	1845.0	1845.0
77.5°	2121.1	1954.1	1787.1	1712.6	1638.0	1620.6	1603.1	1589.5
80°	1661.5	1511.8	1362.1	1286.4	1210.8	1182.8	1154.8	1138.2
82.5°	978.0	840.3	702.6	606.5	510.4	481.6	452.7	412.6
85°	309.8	238.4	167.0	130.3	93.6	75.7	57.8	50.5
87.5°	51.6	41.9	32.2	31.1	30.0	23.5	17.0	14.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)