

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: P143943

Luminaire Tested: **LDRL-5WQ-F03-E-8030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P143943  
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-F03-E-8030  
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE  
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE WIDE  
Light Source: (21) 3000K CCT, 80 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6407.7 lumens  
Efficiency: N/A  
Efficacy: 81.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G1

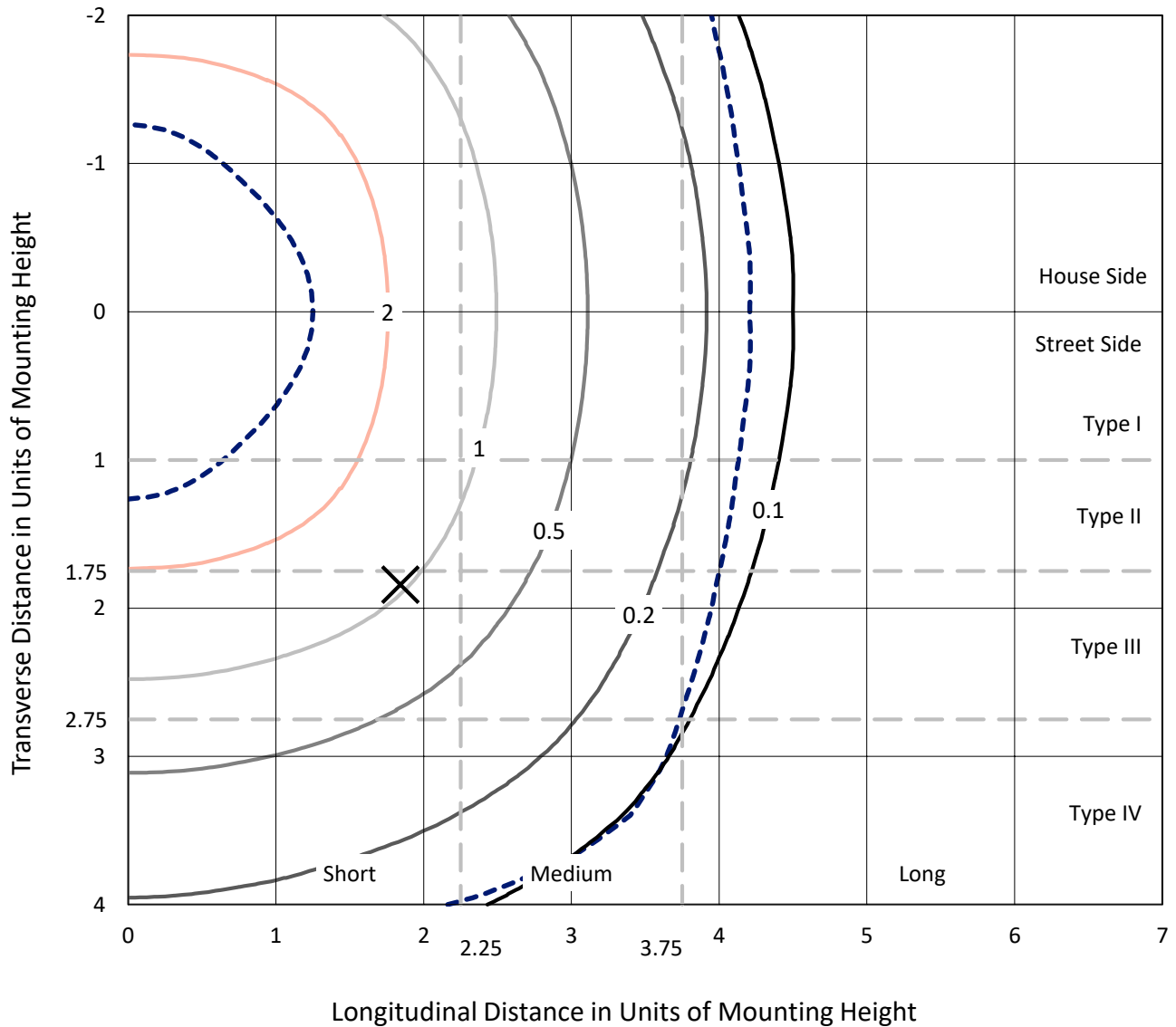
Input Watts (W): 78.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

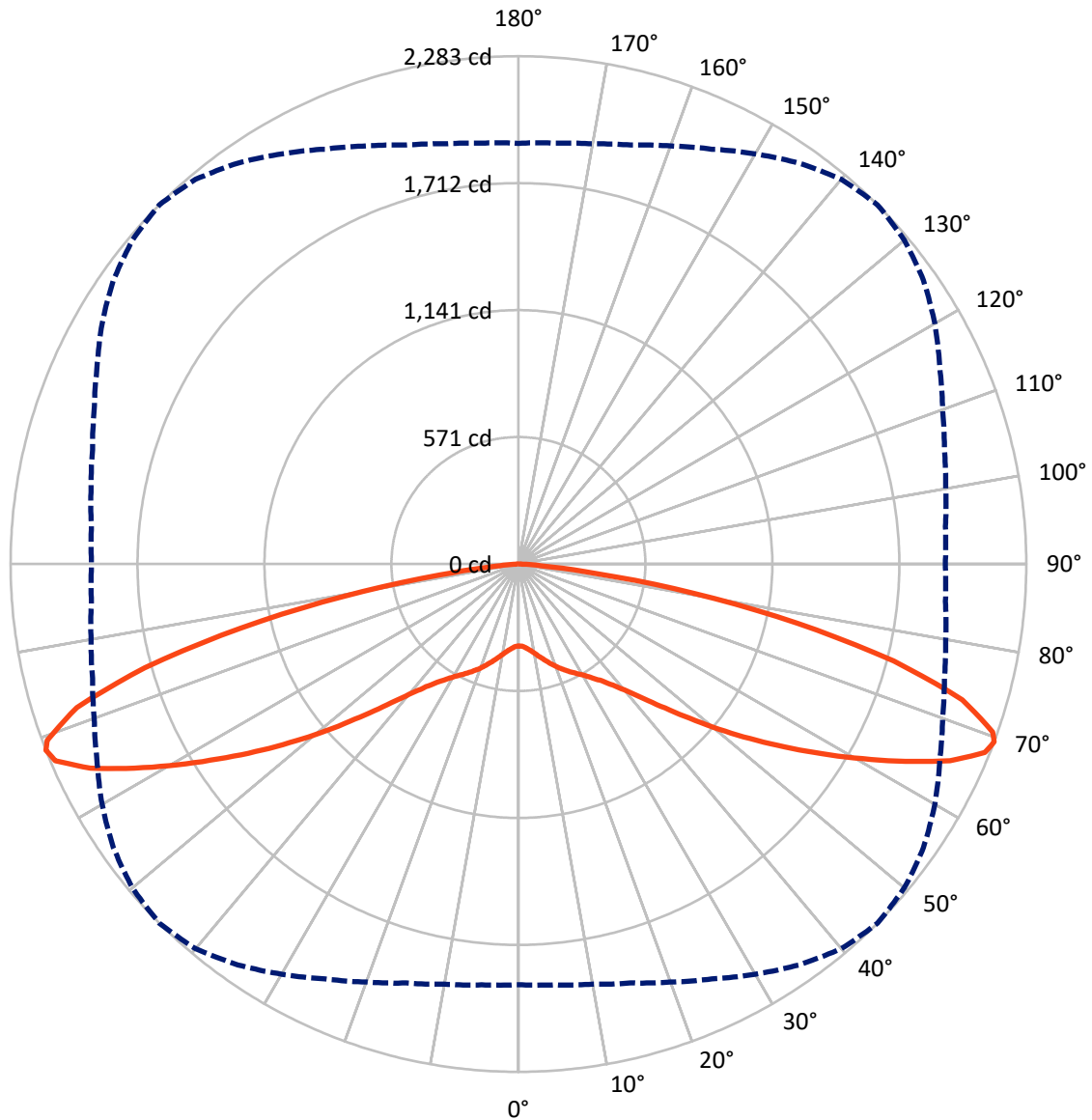
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.1 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	3203.8	0.0	3203.8
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	3203.8	0.0	3203.8
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	6407.7	0.0	6407.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	37.2	0.6
10°-20°	128.0	2.0
20°-30°	246.8	3.9
30°-40°	404.5	6.3
40°-50°	703.3	11.0
50°-60°	1249.3	19.5
60°-70°	1939.6	30.3
70°-80°	1545.4	24.1
80°-90°	153.7	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°	6407.7	100.0
0°-180°	6407.7	100.0



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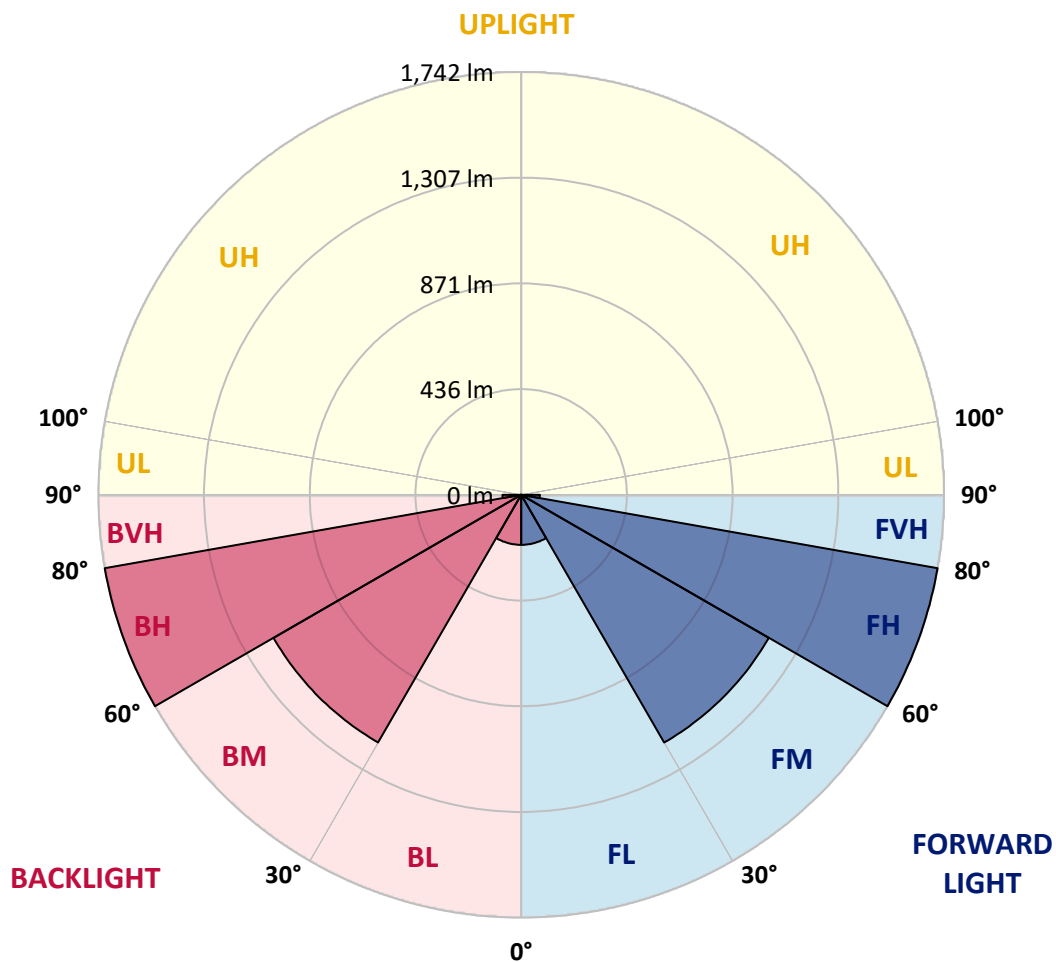
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	206.0	3.2			
FM	(30°-60°)	1178.5	18.4			
FH	(60°-80°)	1742.5	27.2			G1/1800
FVH	(80°-90°)	76.8	1.2			G1/100
BL	(0°-30°)	206.0	3.2	B1/500		
BM	(30°-60°)	1178.5	18.4	B2/2500		
BH	(60°-80°)	1742.5	27.2	B3/2500		G1/1800
BVH	(80°-90°)	76.8	1.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G1**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	368.3	368.3	368.3	368.3	368.3	368.3	368.3	368.3	368.3	368.3	368.3
2.5°	371.2	371.2	371.2	370.8	370.8	370.4	370.8	370.4	370.4	370.4	370.4
5°	380.8	380.0	380.0	379.6	380.4	380.4	379.6	380.0	379.6	380.0	380.0
7.5°	393.0	393.0	393.0	392.5	393.4	393.0	392.5	393.0	393.0	392.5	392.5
10°	408.0	408.4	408.0	408.0	409.3	408.8	409.3	409.3	409.7	409.3	409.3
12.5°	425.6	425.6	426.0	426.4	426.8	427.2	428.5	428.1	428.9	428.1	428.1
15°	446.1	446.9	446.1	446.1	447.3	448.1	448.6	448.6	449.4	449.0	448.1
17.5°	467.8	468.2	467.8	467.4	468.6	469.9	470.3	470.3	471.6	470.7	470.7
20°	489.9	490.4	489.5	489.1	490.8	490.8	491.6	492.0	493.3	493.7	492.5
22.5°	510.4	510.8	510.4	510.0	511.7	511.7	512.9	513.4	515.0	514.6	514.6
25°	530.5	530.5	530.1	530.1	531.7	532.2	533.4	534.3	535.9	535.9	535.9
27.5°	548.9	549.3	548.5	548.1	551.4	552.7	553.5	555.2	556.4	557.2	556.8
30°	569.8	569.8	569.4	570.6	572.7	574.4	576.1	578.6	581.1	580.2	580.2
32.5°	594.5	595.3	594.9	596.5	599.1	601.6	603.7	606.6	607.8	609.9	608.3
35°	627.5	629.2	628.3	630.0	632.1	633.8	638.3	641.3	643.4	644.6	643.8
37.5°	668.9	668.0	669.7	670.1	674.3	676.4	681.8	686.0	689.4	690.6	689.8
40°	720.3	719.0	721.1	723.2	728.6	730.7	737.0	743.3	747.9	749.5	748.7
42.5°	781.7	783.4	786.8	789.7	797.2	803.1	810.2	819.4	824.4	826.5	823.5
45°	862.4	859.5	865.8	873.3	877.5	890.4	902.1	911.7	920.1	923.5	920.1
47.5°	954.4	954.0	961.5	970.7	981.6	993.7	1007.5	1020.0	1034.7	1035.5	1031.3
50°	1056.0	1064.3	1068.5	1077.7	1097.8	1112.8	1130.4	1149.2	1162.6	1166.8	1159.2
52.5°	1178.5	1184.7	1187.2	1202.7	1221.1	1239.5	1264.2	1286.7	1302.2	1303.9	1300.1
55°	1311.4	1316.4	1321.0	1339.8	1359.9	1376.2	1407.5	1429.7	1445.2	1451.0	1448.5
57.5°	1448.9	1453.5	1459.4	1479.9	1500.4	1523.3	1553.0	1578.9	1596.9	1607.8	1604.9
60°	1601.5	1601.5	1614.9	1635.4	1652.1	1679.3	1710.2	1740.3	1760.0	1777.1	1772.5
62.5°	1762.0	1766.6	1779.6	1796.3	1813.9	1839.0	1874.1	1910.0	1940.1	1953.1	1952.7
65°	1883.7	1892.1	1909.2	1928.4	1957.7	1987.4	2031.7	2076.4	2112.8	2131.6	2131.6
67.5°	1919.2	1924.7	1946.0	1975.2	2017.5	2064.7	2124.9	2187.2	2236.9	2261.6	2246.1
69°	1890.8	1898.7	1917.6	1949.3	1999.5	2057.2	2128.7	2199.3	2257.0	2282.5	2264.5
70°	1857.8	1866.6	1885.4	1916.7	1968.6	2030.0	2101.5	2177.6	2239.4	2261.2	2240.7
72.5°	1723.2	1734.0	1747.4	1774.6	1821.4	1879.1	1943.5	2010.4	2069.7	2086.9	2061.4
75°	1493.7	1495.8	1502.4	1522.5	1539.2	1580.2	1635.0	1688.1	1732.8	1742.8	1715.6
77.5°	1057.2	1045.9	1034.7	1051.8	1065.2	1117.8	1177.2	1220.7	1267.5	1281.7	1254.1
80°	463.6	459.4	475.3	497.9	556.8	591.9	650.1	712.3	752.1	798.5	748.7
82.5°	91.6	96.6	111.6	138.0	170.1	214.0	252.1	295.1	334.0	351.6	333.6
85°	37.2	40.6	46.0	51.4	55.2	61.9	72.7	90.3	99.5	100.7	95.7
87.5°	15.5	18.0	24.2	28.8	29.3	28.0	28.8	29.7	24.2	19.6	24.7
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°	368.3	368.3	368.3	368.3	368.3	368.3	368.3	368.3
2.5°	370.4	370.8	370.4	370.8	370.4	370.4	370.8	370.4
5°	379.6	380.0	379.6	379.2	378.7	379.2	379.2	379.2
7.5°	392.5	392.1	391.7	391.7	391.3	390.9	391.7	391.7
10°	408.4	408.0	407.2	407.2	406.8	406.8	406.8	406.8
12.5°	427.7	426.4	426.0	424.7	424.3	423.9	423.9	424.3
15°	447.7	446.5	446.1	444.0	444.0	443.5	443.5	443.5
17.5°	469.0	467.8	466.1	466.1	464.9	464.0	464.4	463.6
20°	490.8	489.1	488.3	487.9	486.2	486.2	486.2	485.8
22.5°	512.1	510.8	509.6	507.9	506.2	505.8	505.8	505.4
25°	533.8	531.7	529.2	527.6	525.9	524.6	524.6	524.6
27.5°	555.6	553.1	549.3	547.2	544.7	543.5	543.5	543.0
30°	578.6	575.6	572.3	569.4	566.0	564.8	564.4	563.5
32.5°	606.2	603.2	599.9	595.7	592.4	590.3	590.3	589.0
35°	641.3	637.9	635.4	630.0	625.8	622.5	622.9	623.7
37.5°	687.3	683.1	681.0	674.3	668.9	665.5	665.5	665.1
40°	745.8	741.6	737.0	730.7	724.0	719.4	718.2	718.2
42.5°	820.2	816.4	810.2	801.4	793.4	788.4	784.2	784.7
45°	913.4	908.8	900.0	889.2	879.6	872.5	866.6	866.6
47.5°	1026.7	1017.1	1005.0	995.4	979.1	968.2	964.0	963.2
50°	1155.9	1137.9	1122.9	1109.1	1091.9	1080.6	1074.4	1072.7
52.5°	1291.3	1272.5	1253.7	1235.7	1214.8	1203.1	1193.1	1192.3
55°	1438.5	1414.7	1390.8	1373.3	1348.6	1336.5	1326.4	1320.6
57.5°	1588.6	1561.8	1544.7	1519.6	1493.7	1484.9	1475.3	1468.2
60°	1757.4	1728.2	1705.6	1679.3	1662.6	1643.7	1634.5	1629.1
62.5°	1930.1	1902.9	1874.1	1849.0	1825.6	1812.6	1800.1	1793.8
65°	2105.7	2060.9	2026.7	1992.0	1964.4	1941.0	1921.3	1918.8
67.5°	2213.5	2157.1	2099.8	2049.2	2008.7	1975.7	1955.6	1948.5
69°	2222.3	2160.9	2089.4	2028.8	1981.9	1950.2	1926.3	1918.8
70°	2198.1	2136.2	2060.9	1995.7	1947.2	1912.5	1892.9	1880.3
72.5°	2020.8	1966.5	1894.1	1829.8	1785.9	1745.3	1725.7	1720.7
75°	1667.1	1609.5	1543.0	1512.1	1481.5	1456.0	1442.7	1441.4
77.5°	1183.9	1124.9	1074.4	1033.8	1000.8	984.5	988.2	974.5
80°	677.6	600.7	539.7	503.7	454.8	425.6	392.5	416.4
82.5°	291.4	235.4	179.3	145.9	111.2	88.2	72.7	67.7
85°	81.5	66.5	55.6	51.0	46.0	41.0	34.7	32.2
87.5°	27.6	26.3	23.4	23.4	21.3	18.0	12.5	11.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)