

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: P143653

Luminaire Tested: **LDRL-5MQ-F04-E-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P143653
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33697)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: LDRL-5MQ-F04-E-8030
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM
Light Source: (28) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8660.9 lumens
Efficiency: N/A
Efficacy: 84.7 lumens/watt
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B3 - U0 - G2

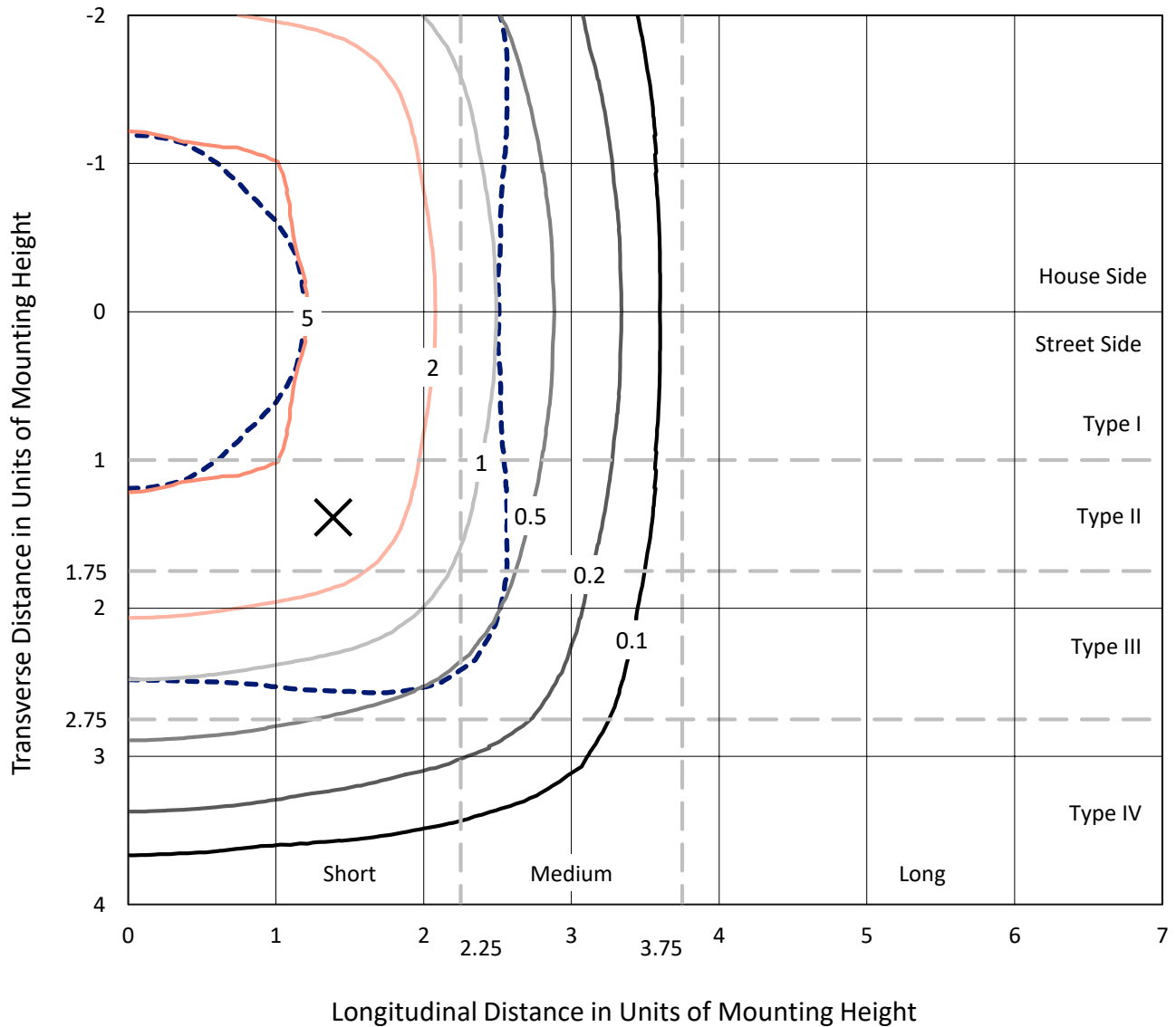
Input Watts (W): 102.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

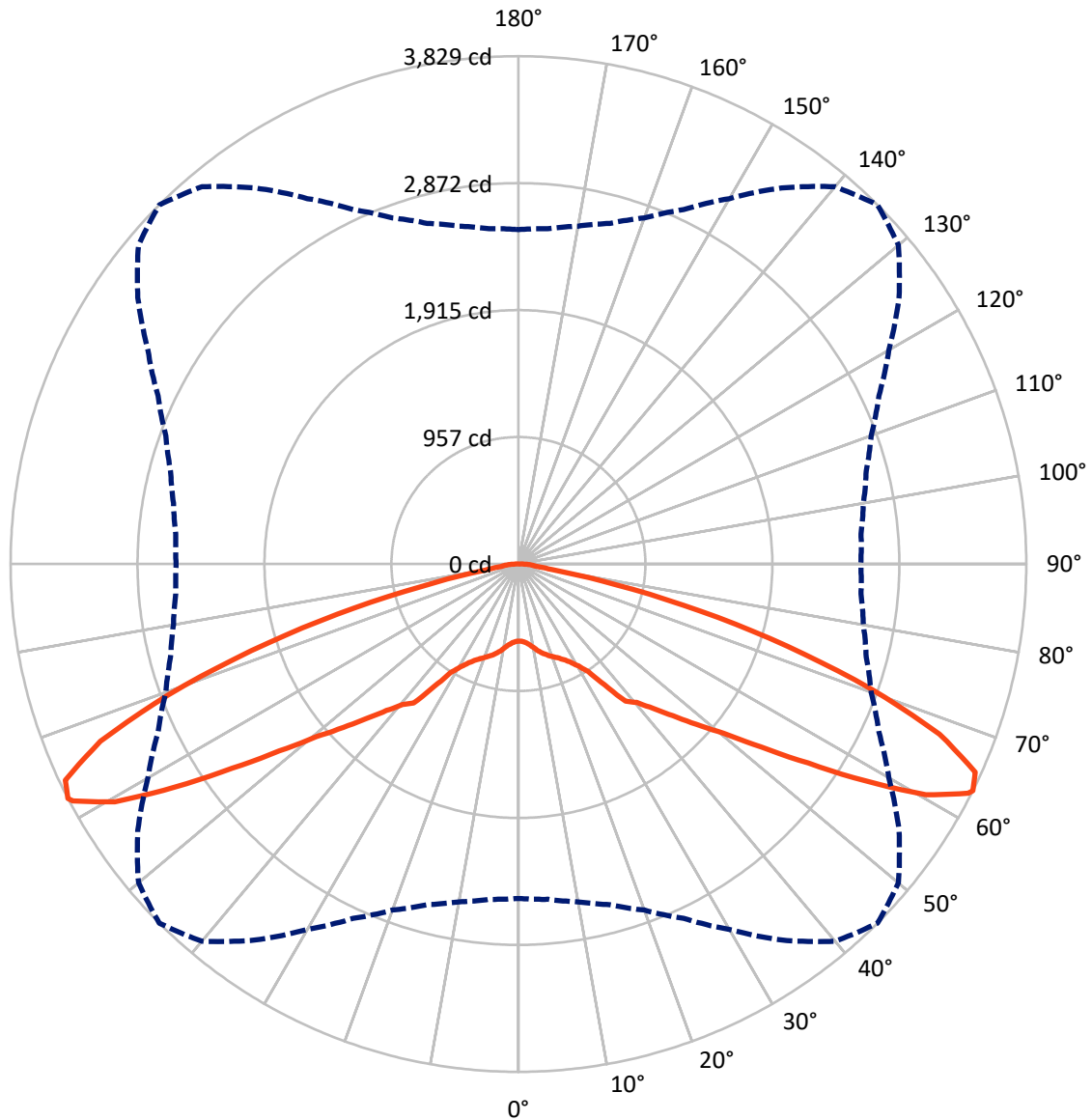
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.4 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 63-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4330.5	0.0	4330.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	4330.5	0.0	4330.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	8660.9	0.0	8660.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.5	0.7
10°-20°	199.9	2.3
20°-30°	381.9	4.4
30°-40°	727.6	8.4
40°-50°	1252.9	14.5
50°-60°	2238.8	25.8
60°-70°	2726.9	31.5
70°-80°	971.4	11.2
80°-90°	103.0	1.2
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°	8660.9	100.0
0°-180°	8660.9	100.0

Coefficient of Utilization



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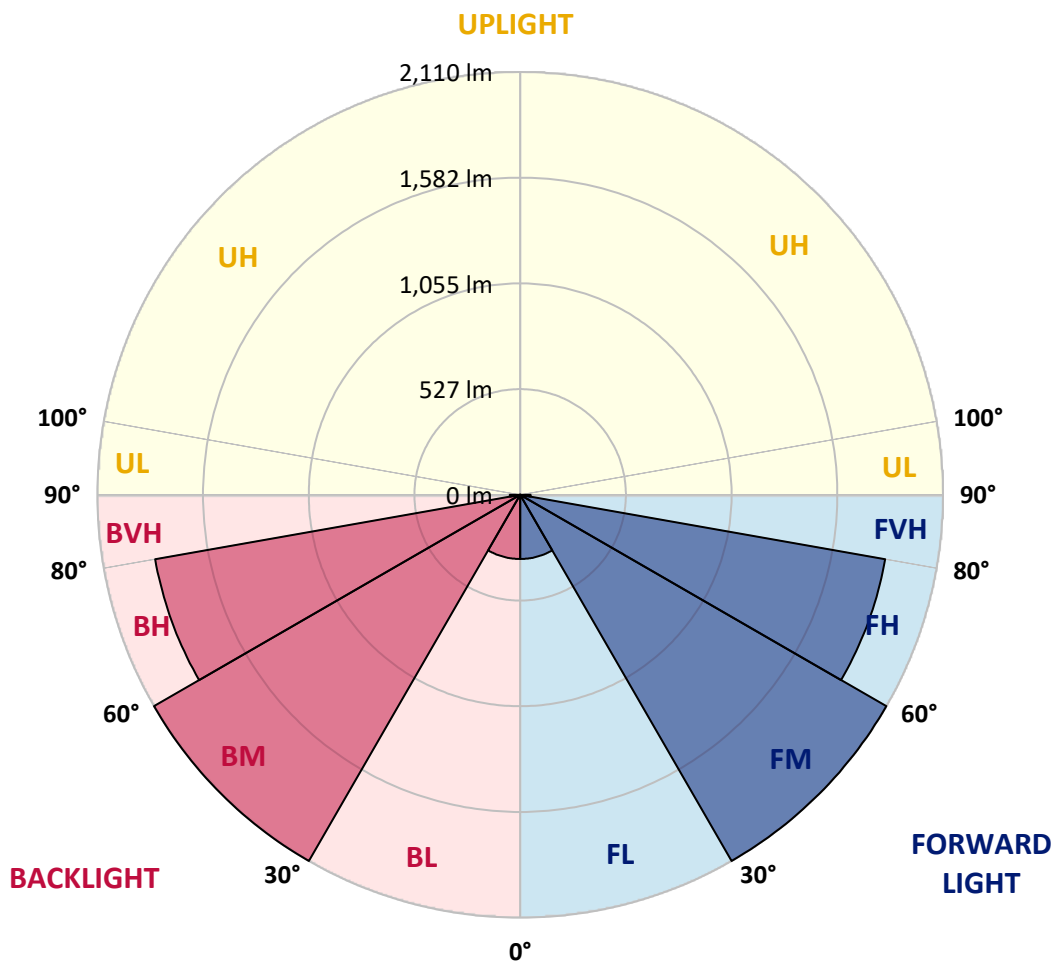
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	320.2	3.7			
FM (30°-60°)	2109.6	24.4			
FH (60°-80°)	1849.1	21.4			G2/5000
FVH (80°-90°)	51.5	0.6			G1/100
BL (0°-30°)	320.2	3.7	B1/500		
BM (30°-60°)	2109.6	24.4	B2/2500		
BH (60°-80°)	1849.1	21.4	B3/2500		G2/5000
BVH (80°-90°)	51.5	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G2

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	581.4	581.4	581.4	581.4	581.4	581.4	581.4	581.4	581.4	581.4	581.4
2.5°	585.8	585.3	585.8	584.7	584.7	584.1	584.1	584.1	583.0	584.1	583.0
5°	598.1	597.5	598.1	597.0	597.0	595.8	595.8	595.8	594.7	595.8	595.3
7.5°	619.3	620.4	619.3	618.1	618.1	617.0	616.5	616.5	615.9	615.4	616.5
10°	648.8	649.9	648.2	647.1	646.6	646.0	644.9	644.3	644.3	642.1	642.7
12.5°	680.0	680.0	678.3	677.8	677.8	676.7	674.4	673.9	673.9	672.8	671.7
15°	707.9	707.9	706.8	704.5	705.1	703.4	701.8	700.6	700.6	699.5	698.4
17.5°	733.5	733.5	731.9	729.6	728.5	727.9	725.7	724.6	724.6	723.5	722.4
20°	759.2	760.3	757.5	755.3	753.0	750.8	748.6	747.5	745.8	746.3	745.8
22.5°	789.8	790.4	785.9	783.1	778.7	775.9	772.5	771.4	769.2	769.2	770.3
25°	828.8	828.3	823.3	818.2	813.2	807.7	802.6	801.5	799.3	798.7	799.3
27.5°	880.1	879.6	873.4	866.7	860.1	851.7	845.6	842.2	840.5	838.3	839.4
30°	943.1	944.2	937.0	929.2	920.8	910.8	903.0	898.5	895.2	892.9	894.1
32.5°	1071.3	1070.2	1059.0	1042.3	1024.5	1001.1	982.1	974.3	968.2	966.0	967.6
35°	1200.1	1198.9	1194.5	1189.5	1185.0	1170.0	1156.0	1139.9	1126.5	1118.1	1120.4
37.5°	1260.8	1260.8	1257.5	1256.4	1256.4	1265.3	1276.4	1296.5	1312.1	1313.2	1308.2
40°	1355.6	1355.6	1350.0	1347.2	1345.5	1348.3	1355.6	1362.8	1370.6	1372.3	1366.7
42.5°	1467.0	1462.0	1458.1	1452.6	1452.0	1454.8	1462.6	1471.5	1479.3	1486.0	1474.3
45°	1587.4	1583.0	1579.1	1575.7	1578.0	1585.2	1595.8	1611.4	1622.6	1632.6	1623.1
47.5°	1721.8	1712.3	1716.2	1712.9	1718.4	1732.9	1751.9	1775.3	1787.0	1804.8	1789.8
50°	1889.0	1891.2	1889.0	1889.0	1895.7	1914.6	1942.5	1974.3	1994.3	2004.4	1995.5
52.5°	2137.6	2130.9	2115.8	2120.3	2129.2	2159.3	2195.6	2240.1	2265.8	2289.8	2261.9
55°	2409.6	2410.7	2408.5	2414.6	2431.9	2462.5	2508.2	2575.7	2608.0	2649.8	2616.4
57.5°	2634.8	2642.6	2656.0	2674.3	2711.7	2763.0	2852.7	2955.8	3041.7	3086.8	3034.4
60°	2707.8	2715.6	2747.9	2799.2	2869.4	2974.2	3119.7	3296.4	3450.8	3531.1	3462.5
62.5°	2567.3	2581.8	2629.8	2700.5	2816.5	2980.4	3196.6	3458.0	3696.0	3805.8	3722.8
63°	2521.6	2537.8	2586.8	2658.7	2776.9	2948.0	3181.6	3461.4	3713.3	3829.3	3739.5
65°	2318.7	2329.3	2381.2	2463.1	2594.6	2773.0	3032.8	3363.8	3650.9	3785.2	3689.9
67.5°	1999.4	2013.3	2060.7	2131.5	2259.1	2448.1	2703.3	3033.3	3315.9	3423.5	3342.1
70°	1603.6	1619.2	1658.2	1724.0	1824.3	1999.4	2217.8	2526.1	2738.4	2822.6	2735.7
72.5°	1127.0	1133.7	1162.2	1231.3	1306.5	1445.9	1619.2	1858.9	2062.9	2118.1	2034.5
75°	477.1	477.7	515.0	559.1	653.3	792.0	943.1	1149.3	1332.7	1418.6	1312.6
77.5°	152.7	154.4	165.0	181.2	212.4	274.2	385.7	498.9	667.2	748.6	649.4
80°	127.6	129.9	134.3	137.7	139.9	143.2	156.1	173.9	219.1	254.7	205.7
82.5°	109.8	113.7	123.7	127.6	129.9	131.0	132.7	132.1	129.3	128.2	128.8
85°	83.6	93.1	104.2	113.1	114.3	114.8	118.2	119.3	110.4	101.4	110.4
87.5°	36.2	46.8	71.9	79.7	78.0	72.5	77.5	81.9	74.7	54.6	73.0
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°	581.4	581.4	581.4	581.4	581.4	581.4	581.4	581.4
2.5°	583.6	584.7	584.7	584.7	584.7	585.3	585.8	585.3
5°	595.8	597.0	596.4	597.0	597.0	597.5	598.1	597.5
7.5°	617.0	617.0	617.0	618.1	618.1	619.3	619.3	619.3
10°	643.2	642.7	642.7	643.8	644.9	645.5	646.6	646.0
12.5°	671.7	670.5	671.1	672.2	673.3	673.9	675.0	674.4
15°	697.3	696.7	696.7	698.4	699.0	699.5	701.8	701.8
17.5°	721.8	721.8	721.8	724.0	724.6	726.8	728.5	728.5
20°	746.3	746.3	746.3	748.6	750.2	753.6	756.9	756.4
22.5°	771.4	772.0	773.1	775.3	779.2	784.2	787.0	787.0
25°	802.6	804.9	807.1	810.4	816.0	822.7	827.2	828.8
27.5°	842.8	847.8	853.4	858.4	864.5	872.9	879.0	880.1
30°	897.4	904.6	913.6	920.2	928.1	937.5	944.8	948.7
32.5°	974.9	992.7	1004.4	1028.4	1042.9	1059.0	1072.4	1078.0
35°	1134.3	1152.1	1167.7	1183.9	1187.2	1192.8	1200.1	1201.7
37.5°	1292.0	1277.5	1263.6	1263.0	1259.1	1260.3	1262.5	1265.3
40°	1360.6	1356.1	1348.9	1351.7	1352.2	1352.2	1356.7	1357.2
42.5°	1470.9	1460.4	1452.0	1458.7	1459.8	1460.9	1465.4	1470.4
45°	1611.4	1595.2	1584.7	1580.8	1584.7	1583.5	1589.7	1590.8
47.5°	1771.9	1750.8	1726.8	1719.0	1716.8	1711.7	1722.3	1721.2
50°	1968.7	1934.7	1905.7	1894.6	1889.0	1886.2	1889.0	1889.0
52.5°	2217.8	2183.8	2144.3	2131.5	2127.0	2133.1	2124.2	2133.7
55°	2560.6	2505.5	2451.4	2434.1	2431.3	2428.5	2429.7	2433.6
57.5°	2946.4	2848.3	2775.8	2733.4	2706.1	2692.7	2678.3	2676.0
60°	3318.7	3140.3	3002.7	2909.0	2842.7	2792.5	2766.9	2758.0
62.5°	3498.2	3237.3	3023.3	2863.9	2765.2	2683.3	2638.1	2626.4
63°	3503.2	3225.0	2998.2	2829.9	2715.0	2641.5	2593.5	2581.3
65°	3410.1	3093.5	2827.6	2642.6	2521.1	2444.1	2385.1	2372.2
67.5°	3071.2	2764.1	2492.1	2304.2	2172.7	2110.8	2045.6	2043.9
70°	2520.5	2246.3	2017.2	1844.4	1734.6	1673.3	1607.0	1608.6
72.5°	1842.7	1599.1	1441.4	1306.5	1190.6	1132.6	1070.2	1076.3
75°	1109.2	891.8	749.7	632.6	513.4	442.0	394.1	366.8
77.5°	474.3	324.4	233.0	185.1	156.1	144.4	138.8	137.1
80°	165.0	146.0	137.7	135.4	133.8	131.5	127.6	123.7
82.5°	133.8	133.8	129.3	128.8	123.7	119.8	109.8	104.8
85°	118.7	116.5	112.6	110.9	109.8	101.4	88.6	81.9
87.5°	78.6	73.0	69.7	71.3	69.1	61.9	37.9	30.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)