

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: P143953

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P143953
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-F04-E-8030
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE WIDE
Light Source: (28) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8543.5 lumens
Efficiency: N/A
Efficacy: 83.6 lumens/watt
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G2

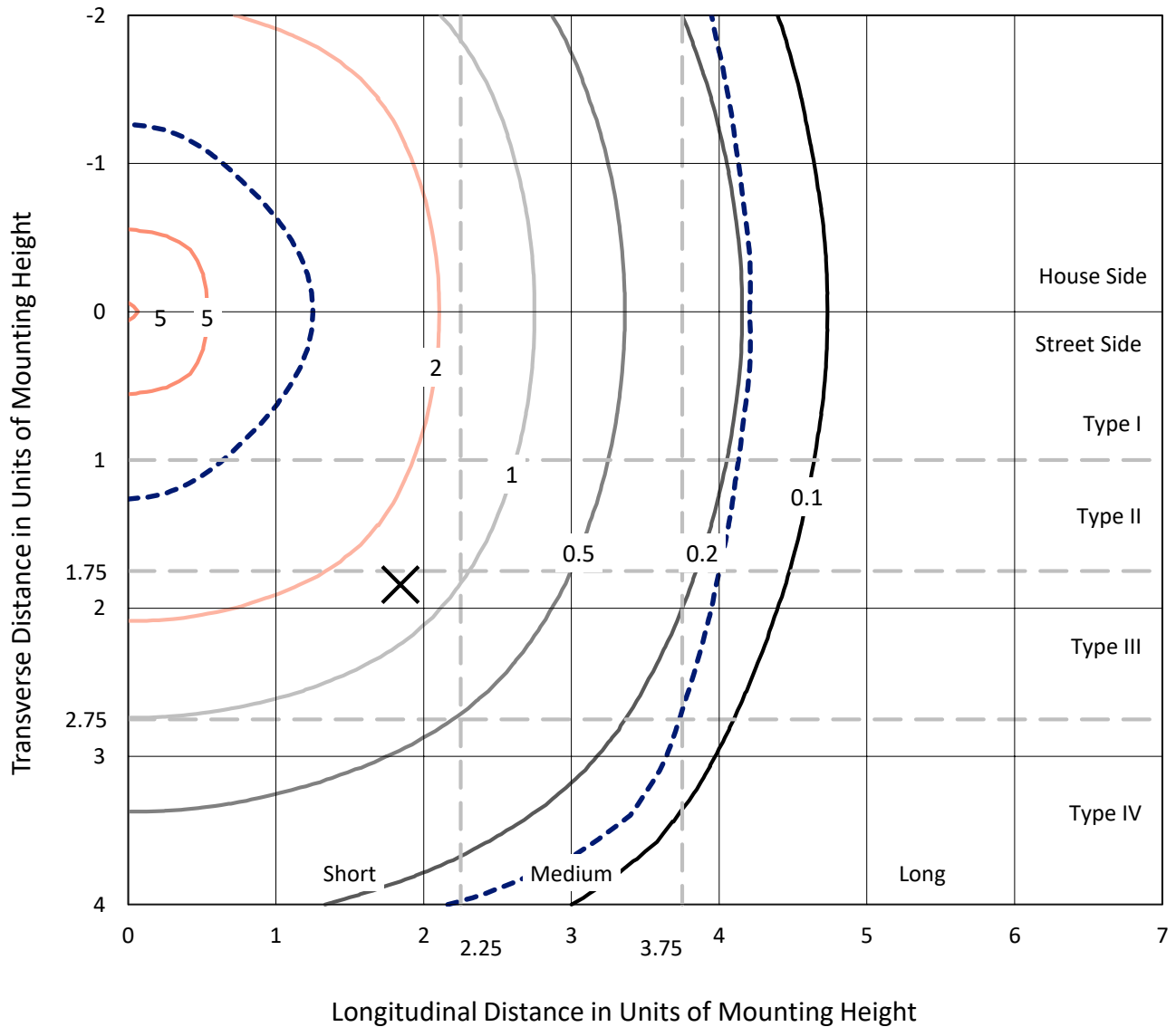
Input Watts (W): 102.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

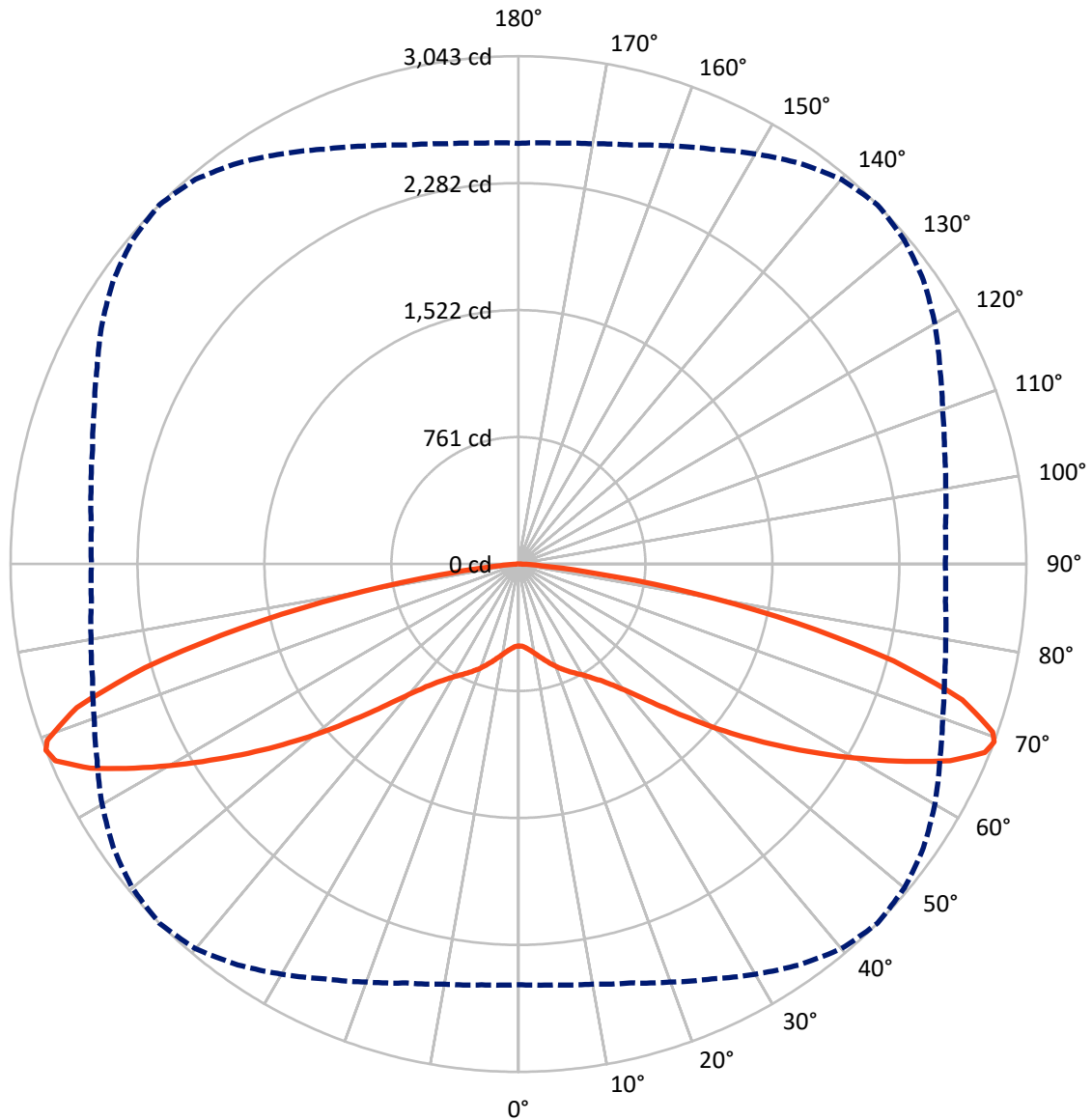
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.5 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
House Side	Lumens	4271.8	0.0	4271.8
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	4271.8	0.0	4271.8
	% Fixture	50.0	0.0	50.0
Total	Lumens	8543.5	0.0	8543.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.5	0.6
10°-20°	170.7	2.0
20°-30°	329.1	3.9
30°-40°	539.3	6.3
40°-50°	937.7	11.0
50°-60°	1665.7	19.5
60°-70°	2586.1	30.3
70°-80°	2060.5	24.1
80°-90°	204.9	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°	8543.5	100.0
0°-180°	8543.5	100.0



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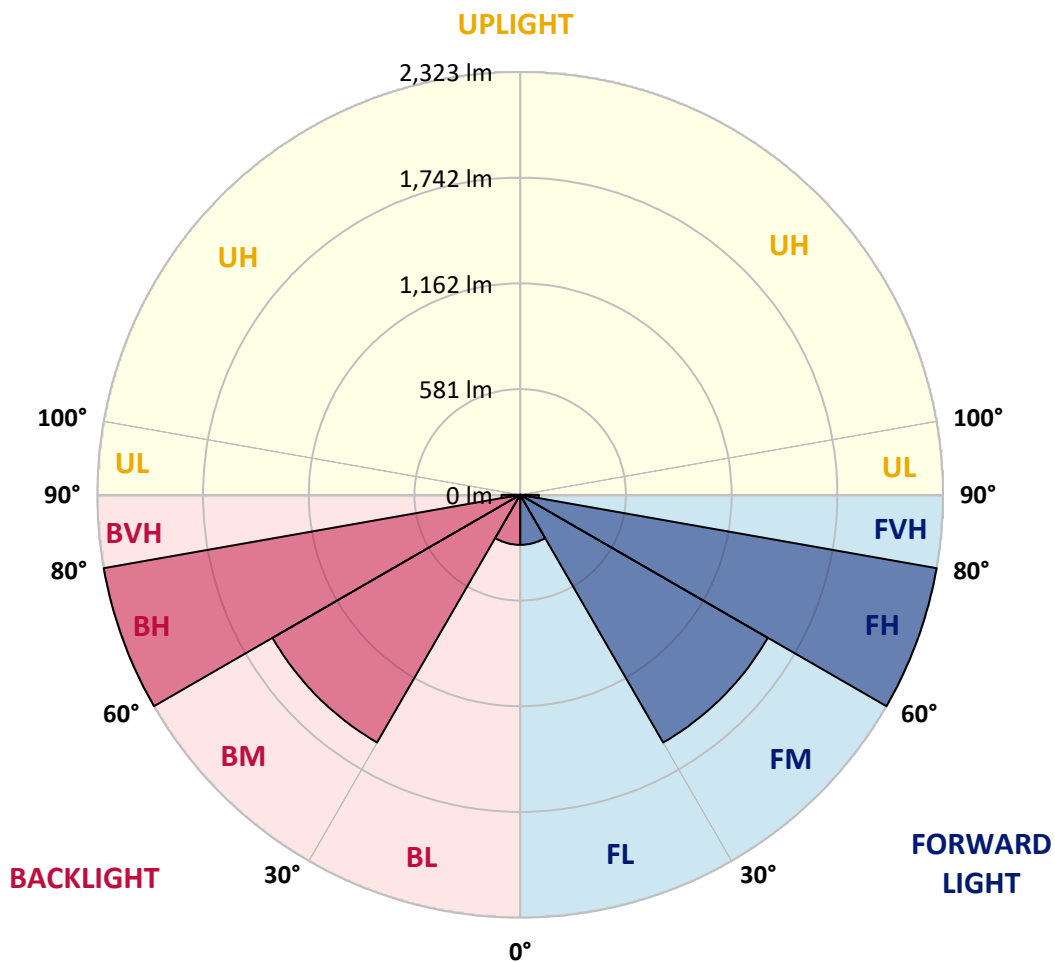
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	274.7	3.2			
FM	(30°-60°)	1571.4	18.4			
FH	(60°-80°)	2323.3	27.2			G2/5000
FVH	(80°-90°)	102.4	1.2			G2/225
BL	(0°-30°)	274.7	3.2	B1/500		
BM	(30°-60°)	1571.4	18.4	B2/2500		
BH	(60°-80°)	2323.3	27.2	B3/2500		G2/5000
BVH	(80°-90°)	102.4	1.2			G2/225
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°	491.1	491.1	491.1	491.1	491.1	491.1	491.1	491.1	491.1	491.1	491.1
2.5°	495.0	495.0	495.0	494.4	494.4	493.8	494.4	493.8	493.8	493.8	493.8
5°	507.8	506.7	506.7	506.1	507.2	507.2	506.1	506.7	506.1	506.7	506.7
7.5°	523.9	523.9	523.9	523.4	524.5	523.9	523.4	523.9	523.9	523.4	523.4
10°	544.0	544.6	544.0	544.0	545.7	545.1	545.7	545.7	546.2	545.7	545.7
12.5°	567.4	567.4	568.0	568.5	569.1	569.7	571.3	570.8	571.9	570.8	570.8
15°	594.7	595.8	594.7	594.7	596.4	597.5	598.1	598.1	599.2	598.6	597.5
17.5°	623.7	624.3	623.7	623.2	624.8	626.5	627.1	627.1	628.7	627.6	627.6
20°	653.3	653.8	652.7	652.1	654.4	654.4	655.5	656.0	657.7	658.3	656.6
22.5°	680.6	681.1	680.6	680.0	682.2	682.2	683.9	684.5	686.7	686.1	686.1
25°	707.3	707.3	706.8	706.8	709.0	709.6	711.2	712.3	714.6	714.6	714.6
27.5°	731.9	732.4	731.3	730.7	735.2	736.9	738.0	740.2	741.9	743.0	742.4
30°	759.7	759.7	759.2	760.8	763.6	765.9	768.1	771.4	774.8	773.7	773.7
32.5°	792.6	793.7	793.2	795.4	798.7	802.1	804.9	808.8	810.4	813.2	811.0
35°	836.6	838.9	837.8	840.0	842.8	845.0	851.1	855.0	857.8	859.5	858.4
37.5°	891.8	890.7	892.9	893.5	899.1	901.9	909.1	914.7	919.1	920.8	919.7
40°	960.4	958.7	961.5	964.3	971.5	974.3	982.7	991.0	997.2	999.4	998.3
42.5°	1042.3	1044.5	1049.0	1052.9	1062.9	1070.7	1080.2	1092.5	1099.2	1102.0	1098.1
45°	1149.9	1146.0	1154.4	1164.4	1170.0	1187.2	1202.8	1215.7	1226.8	1231.3	1226.8
47.5°	1272.5	1272.0	1282.0	1294.3	1308.7	1324.9	1343.3	1360.0	1379.5	1380.7	1375.1
50°	1408.0	1419.1	1424.7	1436.9	1463.7	1483.8	1507.2	1532.3	1550.1	1555.7	1545.6
52.5°	1571.3	1579.6	1583.0	1603.6	1628.1	1652.7	1685.5	1715.6	1736.3	1738.5	1733.5
55°	1748.5	1755.2	1761.3	1786.4	1813.2	1834.9	1876.7	1906.3	1926.9	1934.7	1931.4
57.5°	1931.9	1938.0	1945.8	1973.2	2000.5	2031.1	2070.7	2105.3	2129.2	2143.7	2139.8
60°	2135.4	2135.4	2153.2	2180.5	2202.8	2239.0	2280.3	2320.4	2346.6	2369.5	2363.3
62.5°	2349.4	2355.5	2372.8	2395.1	2418.5	2452.0	2498.8	2546.7	2586.8	2604.1	2603.6
65°	2511.6	2522.7	2545.6	2571.2	2610.3	2649.8	2708.9	2768.5	2817.0	2842.1	2842.1
67.5°	2559.0	2566.2	2594.6	2633.7	2690.0	2752.9	2833.2	2916.3	2982.6	3015.5	2994.8
69°	2521.1	2531.7	2556.7	2599.1	2666.0	2742.9	2838.2	2932.4	3009.3	3043.3	3019.4
70°	2477.0	2488.7	2513.8	2555.6	2624.7	2706.7	2802.0	2903.4	2985.9	3014.9	2987.6
72.5°	2297.6	2312.0	2329.9	2366.1	2428.5	2505.5	2591.3	2680.5	2759.6	2782.5	2748.5
75°	1991.5	1994.3	2003.3	2030.0	2052.3	2106.9	2179.9	2250.7	2310.4	2323.8	2287.5
77.5°	1409.6	1394.6	1379.5	1402.4	1420.2	1490.5	1569.6	1627.6	1690.0	1709.0	1672.2
80°	618.1	612.6	633.8	663.8	742.4	789.3	866.7	949.8	1002.7	1064.6	998.3
82.5°	122.1	128.8	148.8	183.9	226.9	285.4	336.1	393.5	445.4	468.8	444.8
85°	49.6	54.1	61.3	68.6	73.6	82.5	97.0	120.4	132.7	134.3	127.6
87.5°	20.6	24.0	32.3	38.5	39.0	37.3	38.5	39.6	32.3	26.2	32.9
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°	491.1	491.1	491.1	491.1	491.1	491.1	491.1	491.1
2.5°	493.8	494.4	493.8	494.4	493.8	493.8	494.4	493.8
5°	506.1	506.7	506.1	505.6	505.0	505.6	505.6	505.6
7.5°	523.4	522.8	522.3	522.3	521.7	521.2	522.3	522.3
10°	544.6	544.0	542.9	542.9	542.3	542.3	542.3	542.3
12.5°	570.2	568.5	568.0	566.3	565.7	565.2	565.2	565.7
15°	597.0	595.3	594.7	591.9	591.9	591.4	591.4	591.4
17.5°	625.4	623.7	621.5	621.5	619.8	618.7	619.3	618.1
20°	654.4	652.1	651.0	650.5	648.2	648.2	648.2	647.7
22.5°	682.8	681.1	679.5	677.2	675.0	674.4	674.4	673.9
25°	711.8	709.0	705.7	703.4	701.2	699.5	699.5	699.5
27.5°	740.8	737.4	732.4	729.6	726.3	724.6	724.6	724.0
30°	771.4	767.5	763.1	759.2	754.7	753.0	752.5	751.4
32.5°	808.2	804.3	799.9	794.3	789.8	787.0	787.0	785.4
35°	855.0	850.6	847.2	840.0	834.4	830.0	830.5	831.6
37.5°	916.3	910.8	908.0	899.1	891.8	887.4	887.4	886.8
40°	994.4	988.8	982.7	974.3	965.4	959.3	957.6	957.6
42.5°	1093.6	1088.6	1080.2	1068.5	1057.9	1051.2	1045.7	1046.2
45°	1217.9	1211.8	1200.1	1185.6	1172.7	1163.3	1155.5	1155.5
47.5°	1368.9	1356.1	1340.0	1327.1	1305.4	1290.9	1285.3	1284.2
50°	1541.2	1517.2	1497.1	1478.8	1455.9	1440.8	1432.5	1430.3
52.5°	1721.8	1696.7	1671.6	1647.6	1619.8	1604.2	1590.8	1589.7
55°	1918.0	1886.2	1854.4	1831.0	1798.1	1782.0	1768.6	1760.8
57.5°	2118.1	2082.4	2059.6	2026.1	1991.5	1979.8	1967.0	1957.5
60°	2343.3	2304.2	2274.1	2239.0	2216.7	2191.7	2179.4	2172.1
62.5°	2573.5	2537.2	2498.8	2465.3	2434.1	2416.8	2400.1	2391.8
65°	2807.6	2747.9	2702.2	2656.0	2619.2	2588.0	2561.8	2558.4
67.5°	2951.4	2876.1	2799.8	2732.3	2678.3	2634.2	2607.5	2598.0
69°	2963.1	2881.1	2785.8	2705.0	2642.6	2600.2	2568.4	2558.4
70°	2930.7	2848.3	2747.9	2661.0	2596.3	2550.1	2523.9	2507.1
72.5°	2694.4	2622.0	2525.5	2439.7	2381.2	2327.1	2300.9	2294.2
75°	2222.9	2145.9	2057.3	2016.1	1975.4	1941.4	1923.5	1921.9
77.5°	1578.5	1499.9	1432.5	1378.4	1334.4	1312.6	1317.7	1299.3
80°	903.5	801.0	719.6	671.7	606.4	567.4	523.4	555.2
82.5°	388.5	313.8	239.1	194.5	148.3	117.6	97.0	90.3
85°	108.7	88.6	74.1	68.0	61.3	54.6	46.3	42.9
87.5°	36.8	35.1	31.2	31.2	28.4	24.0	16.7	15.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)