

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: P143654

Luminaire Tested: **LDRL-5MQ-F04-E-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P143654
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-7030
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM
Light Source: (28) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9372.6 lumens
Efficiency: N/A
Efficacy: 91.7 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

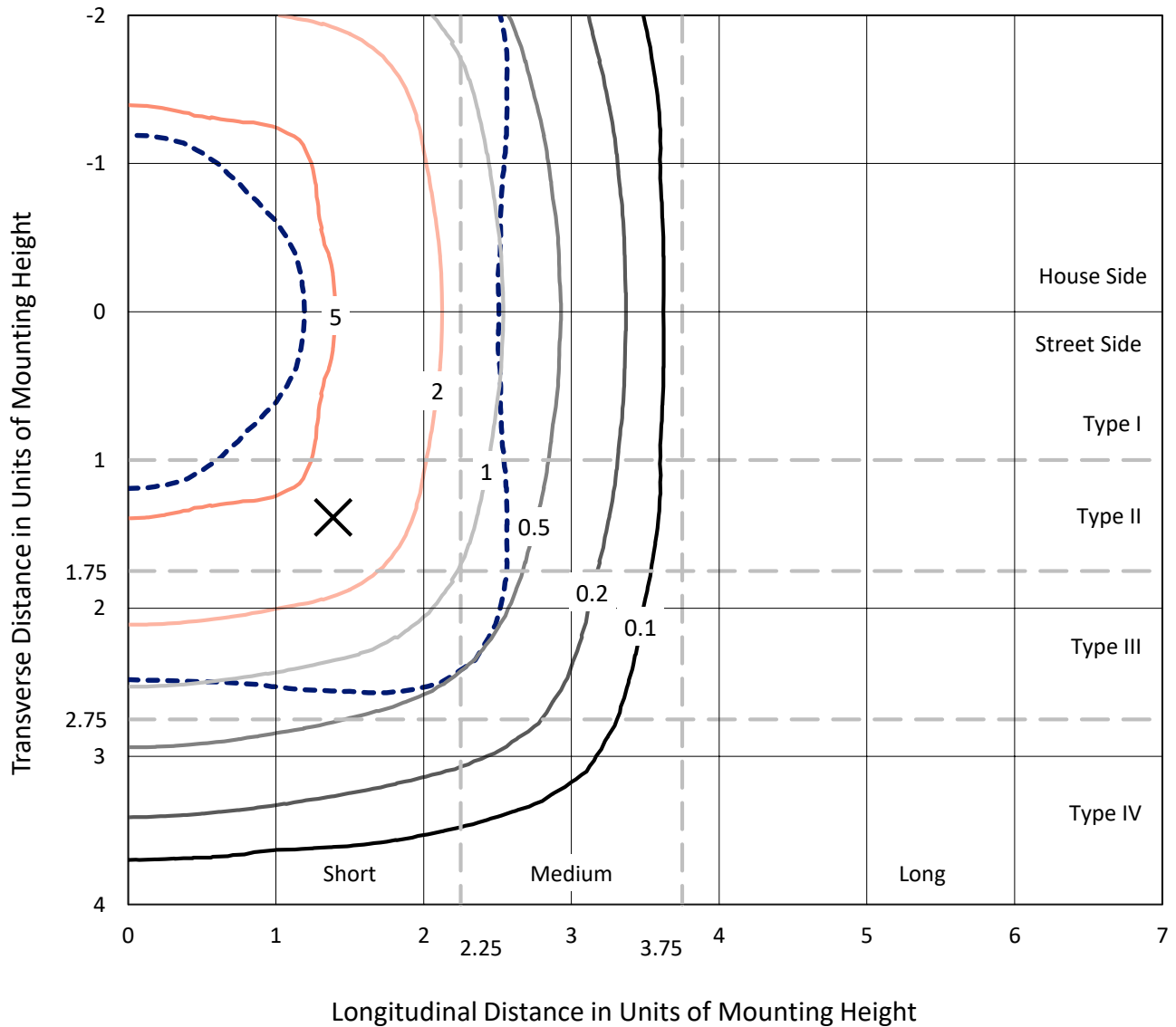
Input Watts (W): 102.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P143654
 CATALOG NUMBER: LDRL-5MQ-F04-E-7030

Iso-Footcandle Lines of Horizontal Illumination

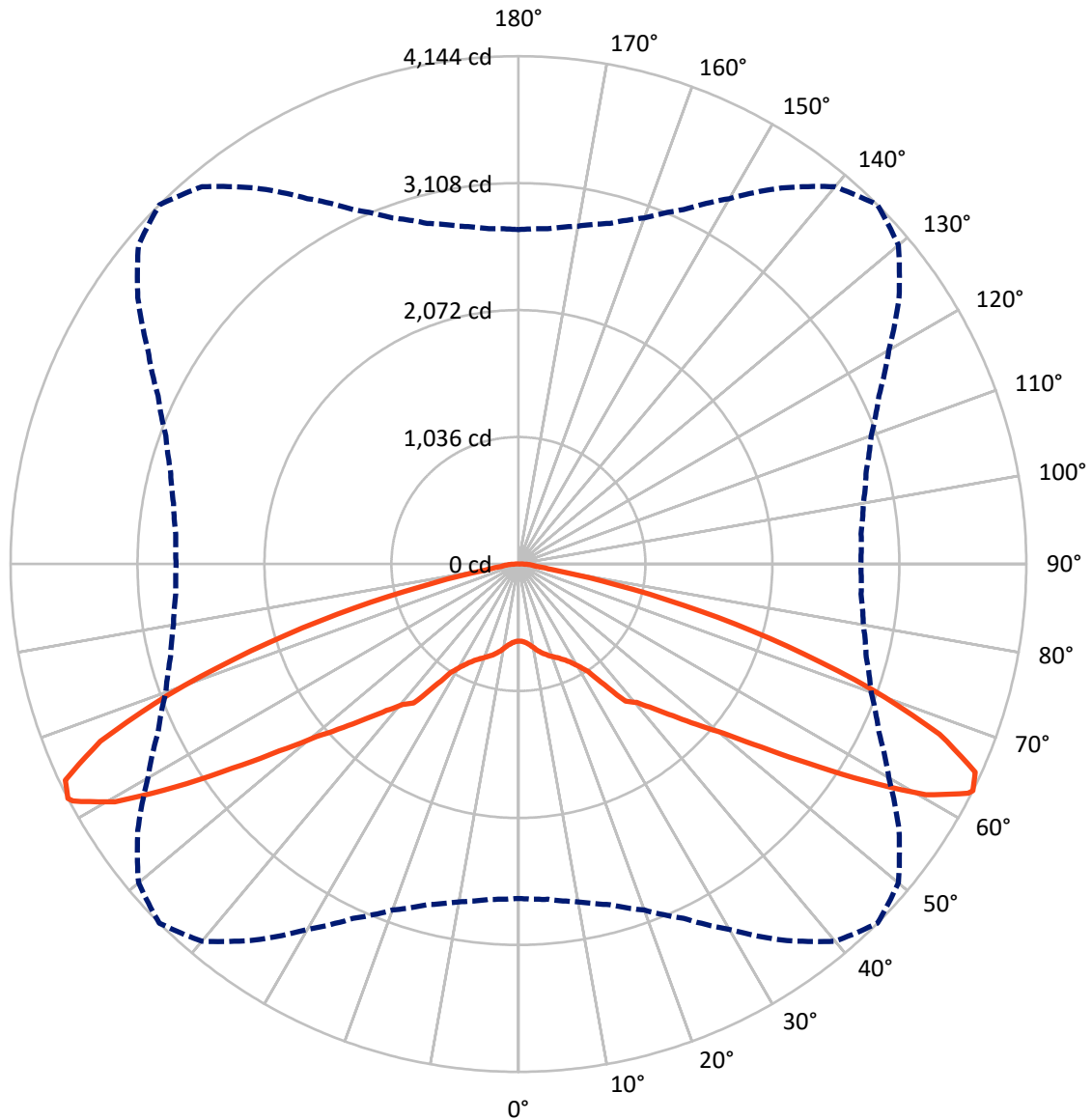
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.9 fc
 Type V - Short - Full Cutoff

REPORT NUMBER: P143654
CATALOG NUMBER: LDRL-5MQ-F04-E-7030

Luminous Intensity Polar Plot



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

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CATALOG NUMBER: LDRL-5MQ-F04-E-7030

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4686.3	0.0	4686.3
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	4686.3	0.0	4686.3
	% Fixture	50.0	0.0	50.0
Total	Lumens	9372.6	0.0	9372.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.3	0.7
10°-20°	216.4	2.3
20°-30°	413.3	4.4
30°-40°	787.4	8.4
40°-50°	1355.8	14.5
50°-60°	2422.8	25.8
60°-70°	2951.0	31.5
70°-80°	1051.2	11.2
80°-90°	111.5	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°	9372.6	100.0
0°-180°	9372.6	100.0



REPORT NUMBER: P143654

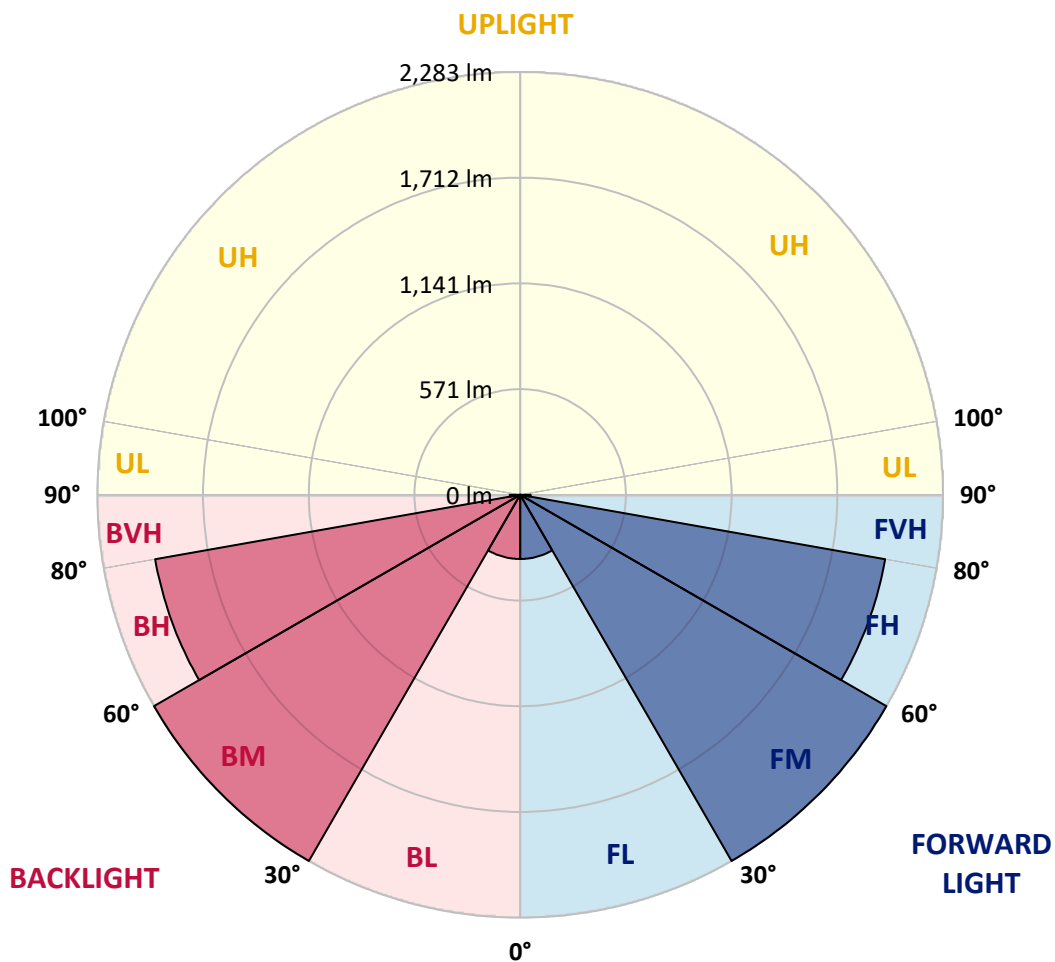
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	346.5	3.7			
FM	(30°-60°)	2283.0	24.4			
FH	(60°-80°)	2001.1	21.4			G2/5000
FVH	(80°-90°)	55.7	0.6			G1/100
BL	(0°-30°)	346.5	3.7	B1/500		
BM	(30°-60°)	2283.0	24.4	B2/2500		
BH	(60°-80°)	2001.1	21.4	B3/2500		G2/5000
BVH	(80°-90°)	55.7	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





REPORT NUMBER: P143654

CATALOG NUMBER: LDRL-5MQ-F04-E-7030

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	629.1	629.1	629.1	629.1	629.1	629.1	629.1	629.1	629.1	629.1	629.1
2.5°	634.0	633.4	634.0	632.8	632.8	632.1	632.1	632.1	630.9	632.1	630.9
5°	647.2	646.6	647.2	646.0	646.0	644.8	644.8	644.8	643.6	644.8	644.2
7.5°	670.1	671.4	670.1	668.9	668.9	667.7	667.1	667.1	666.5	665.9	667.1
10°	702.1	703.3	701.5	700.3	699.7	699.1	697.9	697.3	697.3	694.9	695.5
12.5°	735.9	735.9	734.1	733.5	733.5	732.3	729.9	729.3	729.3	728.1	726.8
15°	766.1	766.1	764.9	762.4	763.0	761.2	759.4	758.2	758.2	757.0	755.8
17.5°	793.8	793.8	792.0	789.6	788.4	787.8	785.4	784.2	784.2	782.9	781.7
20°	821.6	822.8	819.7	817.3	814.9	812.5	810.1	808.9	807.1	807.7	807.1
22.5°	854.7	855.3	850.5	847.5	842.7	839.6	836.0	834.8	832.4	832.4	833.6
25°	897.0	896.3	890.9	885.5	880.1	874.0	868.6	867.4	865.0	864.4	865.0
27.5°	952.4	951.8	945.2	938.0	930.7	921.7	915.0	911.4	909.6	907.2	908.4
30°	1020.6	1021.8	1014.0	1005.5	996.5	985.6	977.2	972.3	968.7	966.3	967.5
32.5°	1159.3	1158.1	1146.1	1128.0	1108.7	1083.3	1062.8	1054.4	1047.7	1045.3	1047.1
35°	1298.7	1297.5	1292.6	1287.2	1282.4	1266.1	1251.0	1233.5	1219.1	1210.0	1212.4
37.5°	1364.4	1364.4	1360.8	1359.6	1359.6	1369.3	1381.3	1403.0	1419.9	1421.1	1415.7
40°	1467.0	1467.0	1460.9	1457.9	1456.1	1459.1	1467.0	1474.8	1483.3	1485.1	1479.0
42.5°	1587.6	1582.2	1578.0	1571.9	1571.3	1574.3	1582.8	1592.4	1600.9	1608.1	1595.5
45°	1717.9	1713.1	1708.9	1705.2	1707.6	1715.5	1726.9	1743.8	1755.9	1766.8	1756.5
47.5°	1863.3	1853.0	1857.2	1853.6	1859.6	1875.3	1895.8	1921.2	1933.8	1953.1	1936.9
50°	2044.2	2046.6	2044.2	2044.2	2051.5	2072.0	2102.1	2136.5	2158.2	2169.1	2159.4
52.5°	2313.3	2306.0	2289.7	2294.6	2304.2	2336.8	2376.0	2424.2	2452.0	2477.9	2447.8
55°	2607.6	2608.8	2606.4	2613.0	2631.7	2664.9	2714.4	2787.4	2822.3	2867.6	2831.4
57.5°	2851.3	2859.7	2874.2	2894.1	2934.5	2990.0	3087.2	3198.7	3291.6	3340.5	3283.8
60°	2930.3	2938.8	2973.8	3029.2	3105.2	3218.6	3376.1	3567.3	3734.4	3821.2	3747.0
62.5°	2778.3	2794.0	2845.9	2922.5	3047.9	3225.3	3459.3	3742.2	3999.8	4118.6	4028.7
63°	2728.9	2746.3	2799.4	2877.2	3005.1	3190.3	3443.0	3745.8	4018.5	4143.9	4046.8
65°	2509.3	2520.8	2576.8	2665.5	2807.9	3000.9	3282.0	3640.3	3950.9	4096.3	3993.1
67.5°	2163.7	2178.7	2230.0	2306.6	2444.7	2649.2	2925.5	3282.6	3588.4	3704.8	3616.8
70°	1735.4	1752.3	1794.5	1865.7	1974.3	2163.7	2400.1	2733.7	2963.5	3054.6	2960.5
72.5°	1219.7	1226.9	1257.7	1332.5	1413.9	1564.7	1752.3	2011.7	2232.4	2292.1	2201.7
75°	516.3	516.9	557.4	605.0	706.9	857.1	1020.6	1243.8	1442.2	1535.1	1420.5
77.5°	165.3	167.1	178.5	196.0	229.8	296.8	417.4	539.9	722.0	810.1	702.7
80°	138.1	140.5	145.4	149.0	151.4	155.0	168.9	188.2	237.1	275.7	222.6
82.5°	118.8	123.1	133.9	138.1	140.5	141.8	143.6	143.0	139.9	138.7	139.3
85°	90.5	100.7	112.8	122.4	123.7	124.3	127.9	129.1	119.4	109.8	119.4
87.5°	39.2	50.7	77.8	86.3	84.4	78.4	83.8	88.7	80.8	59.1	79.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P143654

CATALOG NUMBER: LDRL-5MQ-F04-E-7030

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	629.1	629.1	629.1	629.1	629.1	629.1	629.1	629.1
2.5°	631.5	632.8	632.8	632.8	632.8	633.4	634.0	633.4
5°	644.8	646.0	645.4	646.0	646.0	646.6	647.2	646.6
7.5°	667.7	667.7	667.7	668.9	668.9	670.1	670.1	670.1
10°	696.1	695.5	695.5	696.7	697.9	698.5	699.7	699.1
12.5°	726.8	725.6	726.2	727.5	728.7	729.3	730.5	729.9
15°	754.6	754.0	754.0	755.8	756.4	757.0	759.4	759.4
17.5°	781.1	781.1	781.1	783.6	784.2	786.6	788.4	788.4
20°	807.7	807.7	807.7	810.1	811.9	815.5	819.1	818.5
22.5°	834.8	835.4	836.6	839.0	843.3	848.7	851.7	851.7
25°	868.6	871.0	873.4	877.0	883.1	890.3	895.1	897.0
27.5°	912.0	917.5	923.5	928.9	935.6	944.6	951.2	952.4
30°	971.1	979.0	988.6	995.9	1004.3	1014.6	1022.4	1026.6
32.5°	1055.0	1074.3	1087.0	1112.9	1128.6	1146.1	1160.5	1166.6
35°	1227.5	1246.8	1263.7	1281.2	1284.8	1290.8	1298.7	1300.5
37.5°	1398.2	1382.5	1367.4	1366.8	1362.6	1363.8	1366.2	1369.3
40°	1472.4	1467.6	1459.7	1462.7	1463.4	1463.4	1468.2	1468.8
42.5°	1591.8	1580.4	1571.3	1578.6	1579.8	1581.0	1585.8	1591.2
45°	1743.8	1726.3	1714.9	1710.7	1714.9	1713.7	1720.3	1721.5
47.5°	1917.6	1894.6	1868.7	1860.3	1857.8	1852.4	1863.9	1862.7
50°	2130.5	2093.7	2062.3	2050.3	2044.2	2041.2	2044.2	2044.2
52.5°	2400.1	2363.3	2320.5	2306.6	2301.8	2308.4	2298.8	2309.0
55°	2771.1	2711.4	2652.9	2634.2	2631.1	2628.1	2629.3	2633.5
57.5°	3188.5	3082.3	3003.9	2958.1	2928.5	2914.0	2898.4	2895.9
60°	3591.4	3398.4	3249.4	3148.1	3076.3	3022.0	2994.3	2984.6
62.5°	3785.7	3503.4	3271.7	3099.2	2992.4	2903.8	2854.9	2842.3
63°	3791.1	3490.1	3244.6	3062.4	2938.2	2858.5	2806.7	2793.4
65°	3690.3	3347.7	3060.0	2859.7	2728.2	2645.0	2581.1	2567.2
67.5°	3323.6	2991.2	2696.9	2493.6	2351.3	2284.3	2213.7	2211.9
70°	2727.6	2430.9	2183.0	1996.0	1877.1	1810.8	1739.0	1740.8
72.5°	1994.2	1730.6	1559.9	1413.9	1288.4	1225.7	1158.1	1164.8
75°	1200.4	965.1	811.3	684.6	555.5	478.3	426.5	396.9
77.5°	513.3	351.1	252.1	200.3	168.9	156.2	150.2	148.4
80°	178.5	158.0	149.0	146.6	144.8	142.4	138.1	133.9
82.5°	144.8	144.8	139.9	139.3	133.9	129.7	118.8	113.4
85°	128.5	126.1	121.8	120.0	118.8	109.8	95.9	88.7
87.5°	85.1	79.0	75.4	77.2	74.8	67.0	41.0	32.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)