

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: P143954

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P143954  
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-7030  
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE  
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE WIDE  
Light Source: (28) 3000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9245.7 lumens  
Efficiency: N/A  
Efficacy: 90.5 lumens/watt  
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B4 - 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

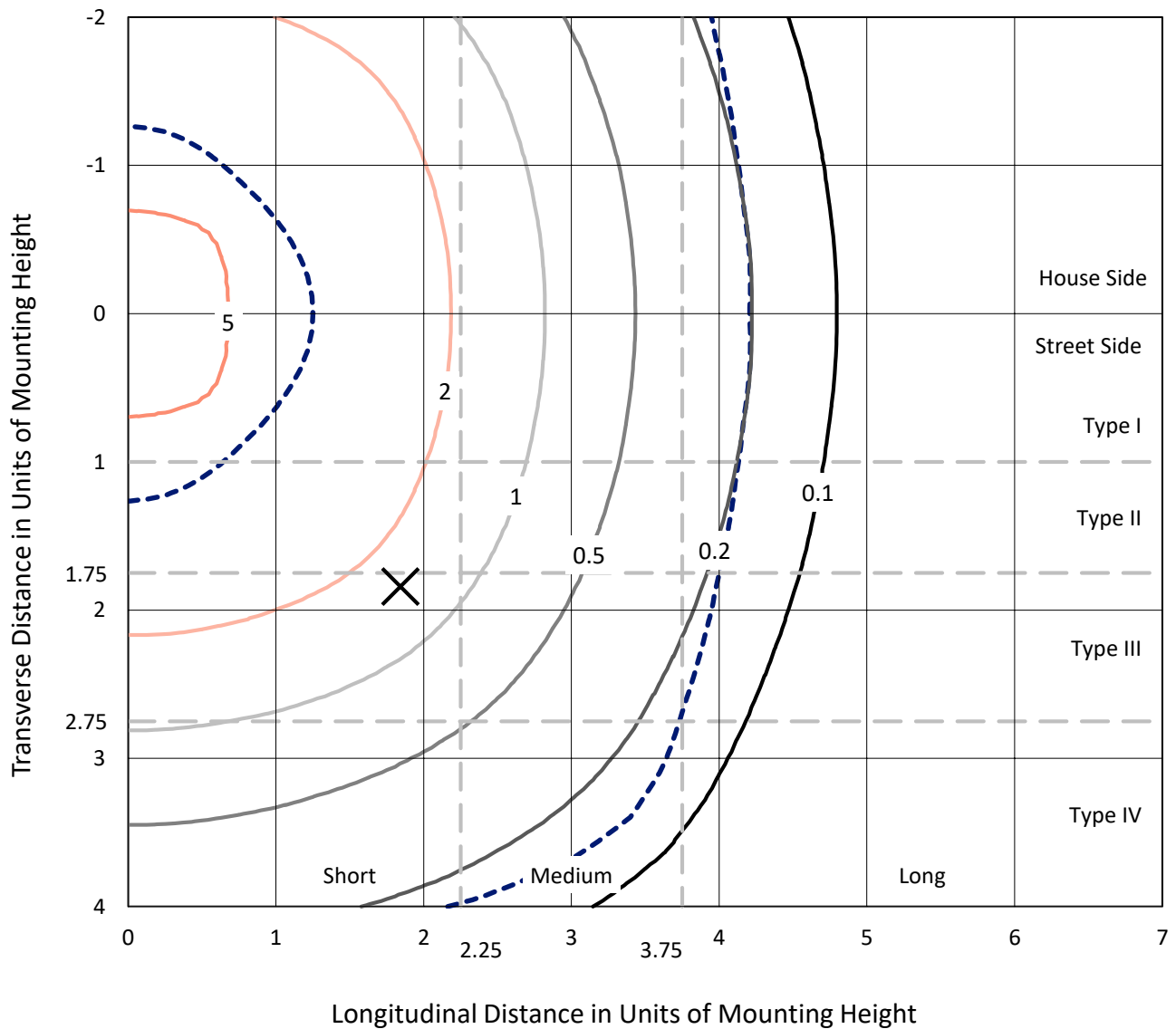


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### Iso-Footcandle Lines of Horizontal Illumination

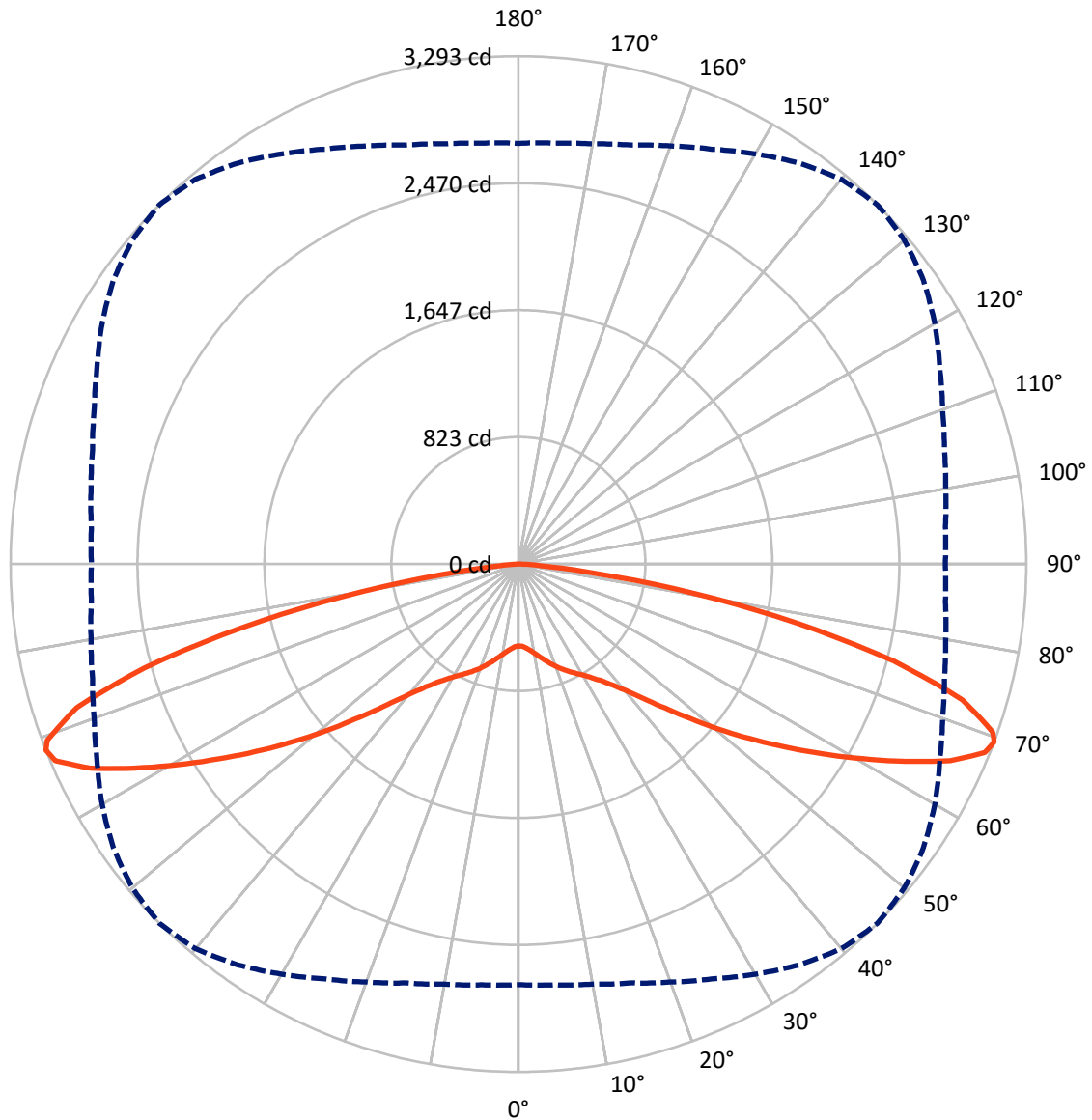
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.9 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	4622.8	0.0	4622.8
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	4622.8	0.0	4622.8
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	9245.7	0.0	9245.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	53.6	0.6
10°-20°	184.7	2.0
20°-30°	356.1	3.9
30°-40°	583.6	6.3
40°-50°	1014.8	11.0
50°-60°	1802.6	19.5
60°-70°	2798.7	30.3
70°-80°	2229.8	24.1
80°-90°	221.7	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°	9245.7	100.0
0°-180°	9245.7	100.0



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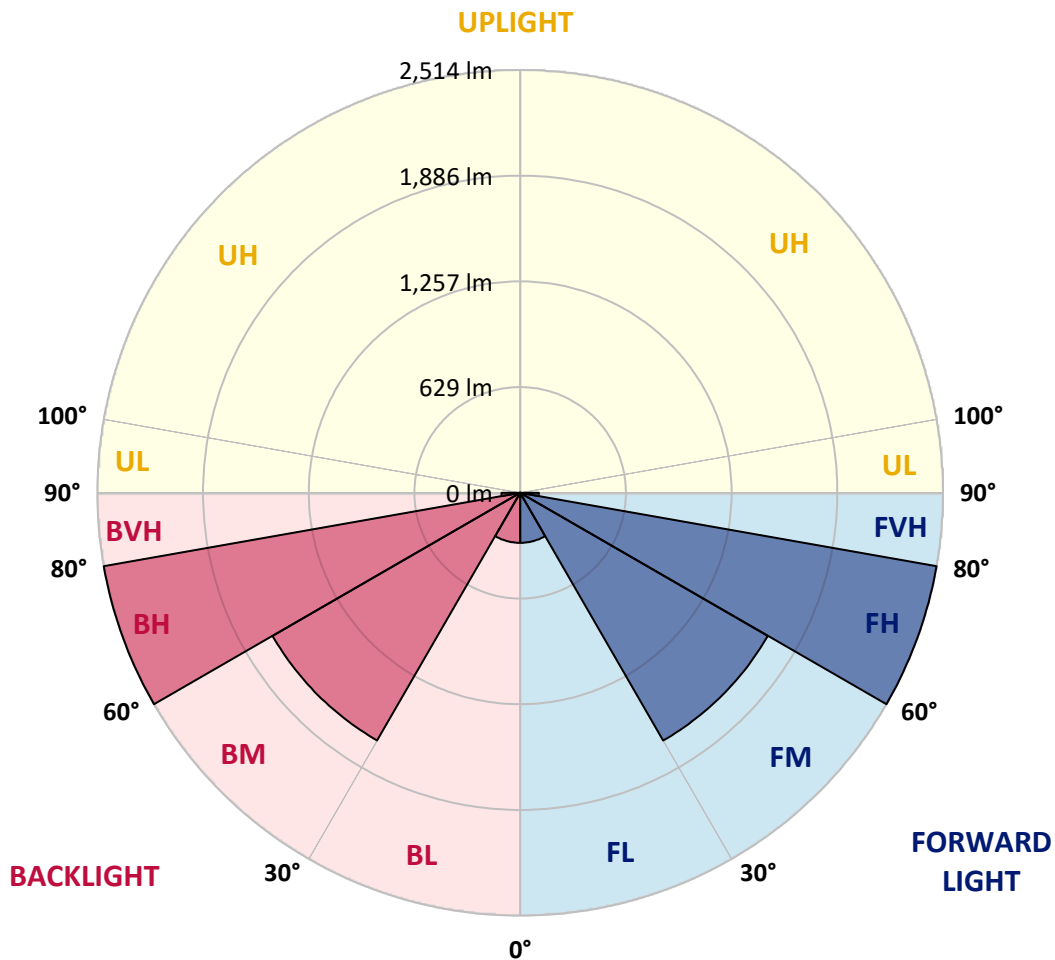
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	297.2	3.2			
FM (30°-60°)	1700.5	18.4			
FH (60°-80°)	2514.2	27.2			G2/5000
FVH (80°-90°)	110.9	1.2			G2/225
BL (0°-30°)	297.2	3.2	B1/500		
BM (30°-60°)	1700.5	18.4	B2/2500		
BH (60°-80°)	2514.2	27.2	B4/5000		G2/5000
BVH (80°-90°)	110.9	1.2			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G2**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	531.4	531.4	531.4	531.4	531.4	531.4	531.4	531.4	531.4	531.4	531.4
2.5°	535.6	535.6	535.6	535.0	535.0	534.4	535.0	534.4	534.4	534.4	534.4
5°	549.5	548.3	548.3	547.7	548.9	548.9	547.7	548.3	547.7	548.3	548.3
7.5°	567.0	567.0	567.0	566.4	567.6	567.0	566.4	567.0	567.0	566.4	566.4
10°	588.7	589.3	588.7	588.7	590.5	589.9	590.5	590.5	591.1	590.5	590.5
12.5°	614.1	614.1	614.7	615.3	615.9	616.5	618.3	617.7	618.9	617.7	617.7
15°	643.6	644.8	643.6	643.6	645.4	646.6	647.2	647.2	648.4	647.8	646.6
17.5°	675.0	675.6	675.0	674.4	676.2	678.0	678.6	678.6	680.4	679.2	679.2
20°	706.9	707.5	706.3	705.7	708.2	708.2	709.4	710.0	711.8	712.4	710.6
22.5°	736.5	737.1	736.5	735.9	738.3	738.3	740.1	740.7	743.1	742.5	742.5
25°	765.5	765.5	764.9	764.9	767.3	767.9	769.7	770.9	773.3	773.3	773.3
27.5°	792.0	792.6	791.4	790.8	795.6	797.4	798.6	801.0	802.9	804.1	803.5
30°	822.2	822.2	821.6	823.4	826.4	828.8	831.2	834.8	838.4	837.2	837.2
32.5°	857.7	858.9	858.3	860.8	864.4	868.0	871.0	875.2	877.0	880.1	877.6
35°	905.4	907.8	906.6	909.0	912.0	914.4	921.1	925.3	928.3	930.1	928.9
37.5°	965.1	963.9	966.3	966.9	973.0	976.0	983.8	989.8	994.7	996.5	995.3
40°	1039.3	1037.5	1040.5	1043.5	1051.4	1054.4	1063.4	1072.5	1079.1	1081.5	1080.3
42.5°	1128.0	1130.4	1135.2	1139.4	1150.3	1158.7	1169.0	1182.3	1189.5	1192.5	1188.3
45°	1244.4	1240.2	1249.2	1260.1	1266.1	1284.8	1301.7	1315.6	1327.6	1332.5	1327.6
47.5°	1377.1	1376.5	1387.3	1400.6	1416.3	1433.8	1453.7	1471.8	1492.9	1494.1	1488.1
50°	1523.7	1535.7	1541.8	1555.0	1584.0	1605.7	1631.0	1658.2	1677.5	1683.5	1672.7
52.5°	1700.4	1709.5	1713.1	1735.4	1761.9	1788.5	1824.1	1856.6	1879.0	1881.4	1875.9
55°	1892.2	1899.5	1906.1	1933.2	1962.2	1985.7	2031.0	2062.9	2085.2	2093.7	2090.1
57.5°	2090.7	2097.3	2105.8	2135.3	2164.9	2198.0	2240.9	2278.3	2304.2	2319.9	2315.7
60°	2310.8	2310.8	2330.1	2359.7	2383.8	2423.0	2467.7	2511.1	2539.5	2564.2	2557.5
62.5°	2542.5	2549.1	2567.8	2591.9	2617.3	2653.5	2704.1	2756.0	2799.4	2818.1	2817.5
65°	2718.0	2730.1	2754.8	2782.5	2824.8	2867.6	2931.5	2996.1	3048.5	3075.7	3075.7
67.5°	2769.3	2777.1	2807.9	2850.1	2911.0	2979.2	3066.0	3155.9	3227.7	3263.3	3241.0
69°	2728.2	2739.7	2766.9	2812.7	2885.1	2968.3	3071.5	3173.4	3256.6	3293.4	3267.5
70°	2680.6	2693.3	2720.4	2765.6	2840.4	2929.1	3032.3	3142.0	3231.3	3262.7	3233.1
72.5°	2486.4	2502.1	2521.4	2560.6	2628.1	2711.4	2804.3	2900.8	2986.4	3011.1	2974.4
75°	2155.2	2158.2	2167.9	2196.8	2221.0	2280.1	2359.1	2435.7	2500.2	2514.7	2475.5
77.5°	1525.5	1509.2	1492.9	1517.6	1536.9	1612.9	1698.6	1761.3	1828.9	1849.4	1809.6
80°	668.9	662.9	685.8	718.4	803.5	854.1	938.0	1027.8	1085.1	1152.1	1080.3
82.5°	132.1	139.3	161.1	199.1	245.5	308.8	363.7	425.9	482.0	507.3	481.3
85°	53.7	58.5	66.4	74.2	79.6	89.3	105.0	130.3	143.6	145.4	138.1
87.5°	22.3	25.9	35.0	41.6	42.2	40.4	41.6	42.8	35.0	28.4	35.6
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°	531.4	531.4	531.4	531.4	531.4	531.4	531.4	531.4
2.5°	534.4	535.0	534.4	535.0	534.4	534.4	535.0	534.4
5°	547.7	548.3	547.7	547.1	546.5	547.1	547.1	547.1
7.5°	566.4	565.8	565.2	565.2	564.6	564.0	565.2	565.2
10°	589.3	588.7	587.5	587.5	586.9	586.9	586.9	586.9
12.5°	617.1	615.3	614.7	612.8	612.2	611.6	611.6	612.2
15°	646.0	644.2	643.6	640.6	640.6	640.0	640.0	640.0
17.5°	676.8	675.0	672.6	672.6	670.8	669.5	670.1	668.9
20°	708.2	705.7	704.5	703.9	701.5	701.5	701.5	700.9
22.5°	738.9	737.1	735.3	732.9	730.5	729.9	729.9	729.3
25°	770.3	767.3	763.6	761.2	758.8	757.0	757.0	757.0
27.5°	801.6	798.0	792.6	789.6	786.0	784.2	784.2	783.6
30°	834.8	830.6	825.8	821.6	816.7	814.9	814.3	813.1
32.5°	874.6	870.4	865.6	859.6	854.7	851.7	851.7	849.9
35°	925.3	920.5	916.9	909.0	903.0	898.2	898.8	900.0
37.5°	991.7	985.6	982.6	973.0	965.1	960.3	960.3	959.7
40°	1076.1	1070.1	1063.4	1054.4	1044.7	1038.1	1036.3	1036.3
42.5°	1183.5	1178.0	1169.0	1156.3	1144.9	1137.6	1131.6	1132.2
45°	1318.0	1311.3	1298.7	1283.0	1269.1	1258.9	1250.4	1250.4
47.5°	1481.4	1467.6	1450.1	1436.2	1412.7	1397.0	1391.0	1389.8
50°	1667.8	1641.9	1620.2	1600.3	1575.5	1559.3	1550.2	1547.8
52.5°	1863.3	1836.1	1809.0	1783.0	1752.9	1736.0	1721.5	1720.3
55°	2075.6	2041.2	2006.8	1981.5	1945.9	1928.4	1913.9	1905.5
57.5°	2292.1	2253.5	2228.8	2192.6	2155.2	2142.5	2128.7	2118.4
60°	2535.8	2493.6	2461.0	2423.0	2398.9	2371.8	2358.5	2350.7
62.5°	2785.0	2745.7	2704.1	2667.9	2634.2	2615.5	2597.4	2588.3
65°	3038.3	2973.8	2924.3	2874.2	2834.4	2800.6	2772.3	2768.7
67.5°	3193.9	3112.5	3029.8	2956.9	2898.4	2850.7	2821.7	2811.5
69°	3206.6	3117.9	3014.8	2927.3	2859.7	2813.9	2779.5	2768.7
70°	3171.6	3082.3	2973.8	2879.7	2809.7	2759.6	2731.3	2713.2
72.5°	2915.8	2837.4	2733.1	2640.2	2576.8	2518.3	2490.0	2482.7
75°	2405.5	2322.3	2226.4	2181.8	2137.7	2100.9	2081.6	2079.8
77.5°	1708.2	1623.2	1550.2	1491.7	1444.0	1420.5	1426.0	1406.0
80°	977.8	866.8	778.7	726.8	656.3	614.1	566.4	600.8
82.5°	420.4	339.6	258.8	210.5	160.4	127.3	105.0	97.7
85°	117.6	95.9	80.2	73.6	66.4	59.1	50.1	46.4
87.5°	39.8	38.0	33.8	33.8	30.8	25.9	18.1	16.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)