

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: P143952

Luminaire Tested: **LDRL-5WQ-E04-E-7060**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P143952  
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-E04-E-7060  
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE  
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE WIDE  
Light Source: (84) 5700K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12582.4 lumens  
Efficiency: N/A  
Efficacy: 129.4 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

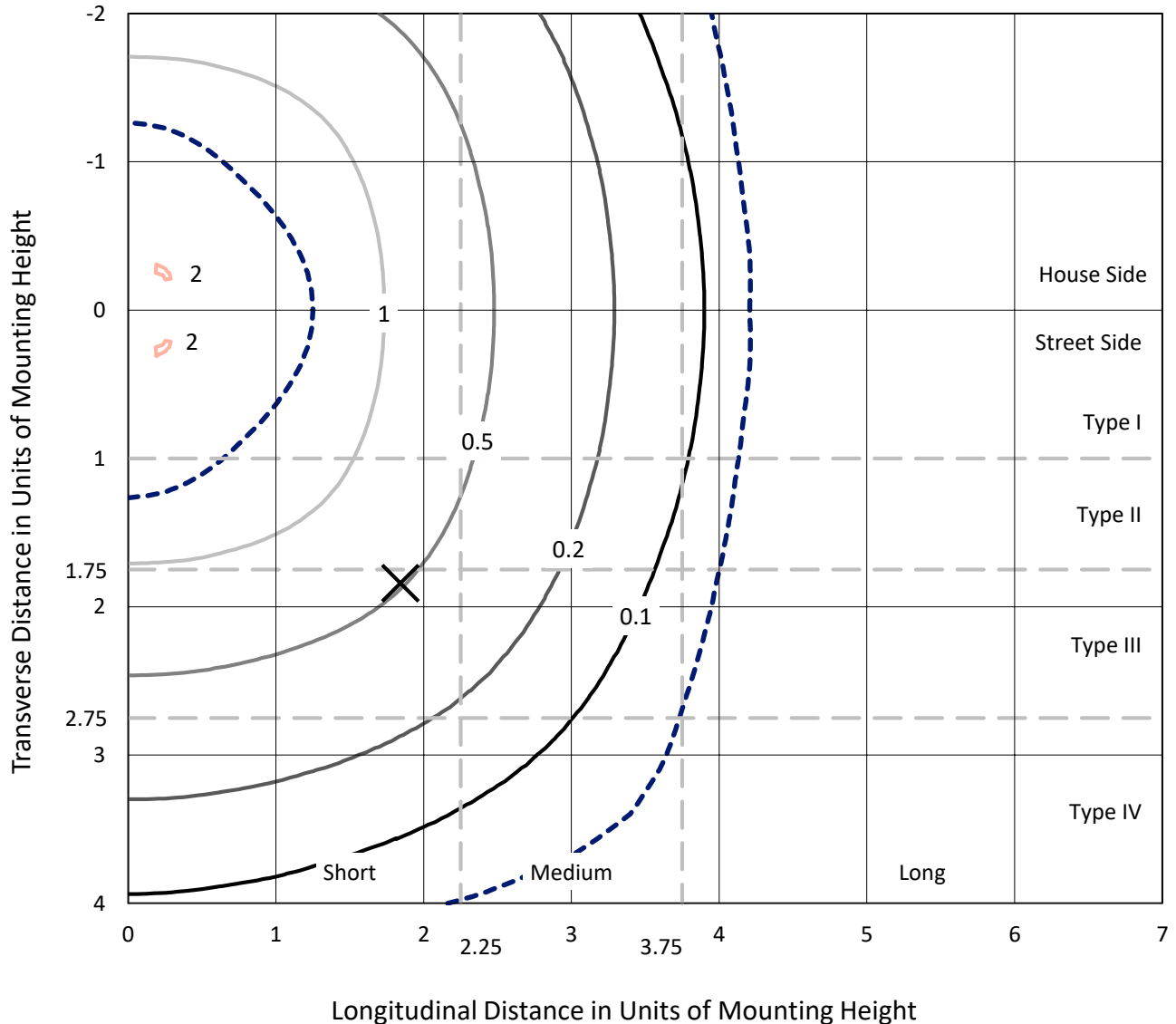
Input Watts (W): 97.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

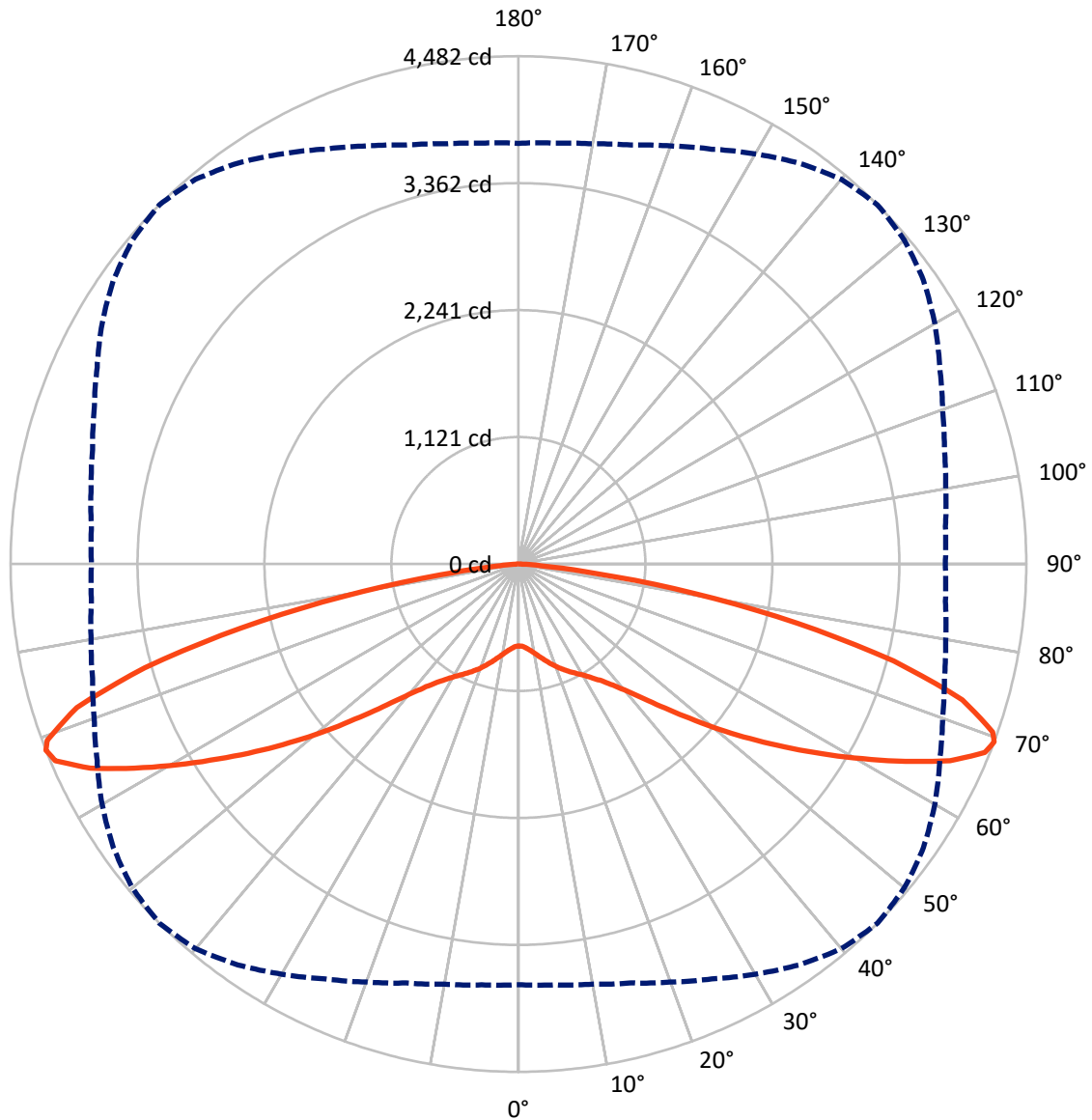
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 2 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	6291.2	0.0	6291.2
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	6291.2	0.0	6291.2
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	12582.4	0.0	12582.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.9	0.6
10°-20°	251.4	2.0
20°-30°	484.7	3.9
30°-40°	794.2	6.3
40°-50°	1381.0	11.0
50°-60°	2453.2	19.5
60°-70°	3808.7	30.3
70°-80°	3034.5	24.1
80°-90°	301.8	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°	12582.4	100.0
0°-180°	12582.4	100.0



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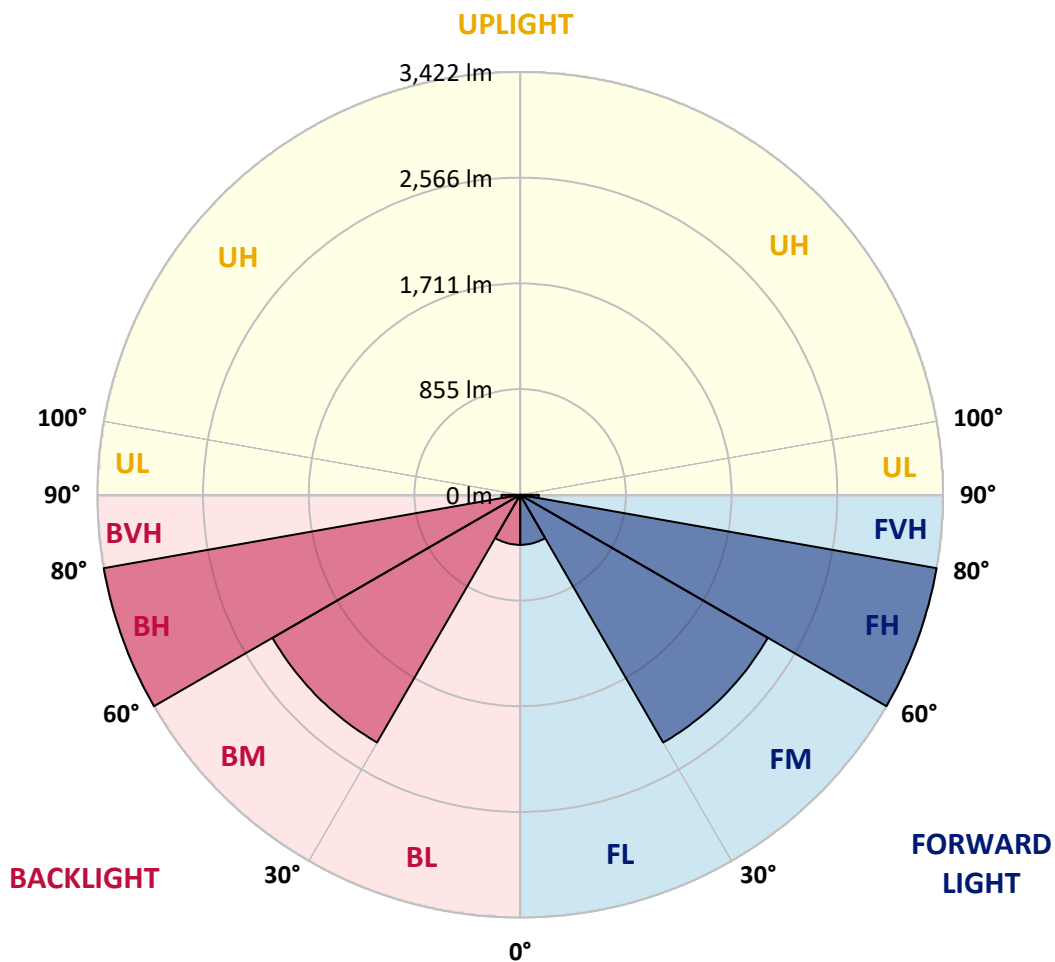
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	404.5	3.2			
FM	(30°-60°)	2314.2	18.4			
FH	(60°-80°)	3421.6	27.2			G2/5000
FVH	(80°-90°)	150.9	1.2			G2/225
BL	(0°-30°)	404.5	3.2	B1/500		
BM	(30°-60°)	2314.2	18.4	B2/2500		
BH	(60°-80°)	3421.6	27.2	B4/5000		G2/5000
BVH	(80°-90°)	150.9	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°	723.2	723.2	723.2	723.2	723.2	723.2	723.2	723.2	723.2	723.2	723.2
2.5°	728.9	728.9	728.9	728.1	728.1	727.3	728.1	727.3	727.3	727.3	727.3
5°	747.8	746.2	746.2	745.4	747.0	747.0	745.4	746.2	745.4	746.2	746.2
7.5°	771.6	771.6	771.6	770.8	772.5	771.6	770.8	771.6	771.6	770.8	770.8
10°	801.2	802.0	801.2	801.2	803.6	802.8	803.6	803.6	804.5	803.6	803.6
12.5°	835.7	835.7	836.5	837.3	838.1	838.9	841.4	840.6	842.2	840.6	840.6
15°	875.9	877.5	875.9	875.9	878.3	880.0	880.8	880.8	882.5	881.6	880.0
17.5°	918.6	919.4	918.6	917.7	920.2	922.7	923.5	923.5	926.0	924.3	924.3
20°	962.1	962.9	961.3	960.4	963.7	963.7	965.4	966.2	968.6	969.5	967.0
22.5°	1002.3	1003.1	1002.3	1001.5	1004.8	1004.8	1007.2	1008.0	1011.3	1010.5	1010.5
25°	1041.7	1041.7	1040.9	1040.9	1044.2	1045.0	1047.4	1049.1	1052.4	1052.4	1052.4
27.5°	1077.8	1078.6	1077.0	1076.2	1082.7	1085.2	1086.9	1090.1	1092.6	1094.2	1093.4
30°	1118.9	1118.9	1118.0	1120.5	1124.6	1127.9	1131.2	1136.1	1141.0	1139.4	1139.4
32.5°	1167.3	1168.9	1168.1	1171.4	1176.3	1181.3	1185.4	1191.1	1193.6	1197.7	1194.4
35°	1232.1	1235.4	1233.8	1237.1	1241.2	1244.5	1253.5	1259.2	1263.3	1265.8	1264.2
37.5°	1313.4	1311.8	1315.1	1315.9	1324.1	1328.2	1338.9	1347.1	1353.6	1356.1	1354.5
40°	1414.4	1411.9	1416.0	1420.1	1430.8	1434.9	1447.2	1459.5	1468.6	1471.8	1470.2
42.5°	1535.1	1538.3	1544.9	1550.7	1565.4	1576.9	1590.9	1608.9	1618.8	1622.9	1617.1
45°	1693.5	1687.7	1700.1	1714.8	1723.0	1748.5	1771.5	1790.3	1806.8	1813.3	1806.8
47.5°	1874.1	1873.3	1888.0	1906.1	1927.4	1951.2	1978.3	2003.0	2031.7	2033.3	2025.1
50°	2073.6	2090.0	2098.2	2116.2	2155.6	2185.2	2219.7	2256.6	2282.9	2291.1	2276.3
52.5°	2314.1	2326.4	2331.3	2361.7	2397.8	2433.9	2482.4	2526.7	2557.1	2560.3	2553.0
55°	2575.1	2585.0	2594.0	2630.9	2670.3	2702.4	2763.9	2807.4	2837.8	2849.3	2844.4
57.5°	2845.2	2854.2	2865.7	2905.9	2946.2	2991.3	3049.6	3100.5	3135.8	3157.1	3151.4
60°	3144.8	3144.8	3171.1	3211.3	3244.1	3297.5	3358.2	3417.3	3455.9	3489.6	3480.5
62.5°	3460.0	3469.1	3494.5	3527.3	3561.8	3611.1	3680.0	3750.6	3809.7	3835.2	3834.4
65°	3698.9	3715.3	3749.0	3786.7	3844.2	3902.5	3989.5	4077.3	4148.7	4185.7	4185.7
67.5°	3768.7	3779.4	3821.2	3878.7	3961.6	4054.3	4172.6	4294.9	4392.6	4441.0	4410.6
69°	3712.9	3728.5	3765.4	3827.8	3926.3	4039.6	4179.9	4318.7	4432.0	4482.0	4446.7
70°	3648.0	3665.2	3702.2	3763.8	3865.5	3986.2	4126.6	4276.0	4397.5	4440.2	4399.9
72.5°	3383.7	3405.0	3431.3	3484.7	3576.6	3689.9	3816.3	3947.6	4064.2	4097.9	4047.8
75°	2933.0	2937.1	2950.3	2989.7	3022.5	3102.9	3210.5	3314.7	3402.6	3422.3	3368.9
77.5°	2076.0	2053.9	2031.7	2065.3	2091.6	2195.0	2311.6	2397.0	2488.9	2516.8	2462.7
80°	910.4	902.2	933.3	977.7	1093.4	1162.4	1276.5	1398.8	1476.8	1567.9	1470.2
82.5°	179.8	189.6	219.2	270.9	334.1	420.3	495.0	579.5	655.9	690.4	655.1
85°	73.1	79.6	90.3	101.0	108.4	121.5	142.8	177.3	195.4	197.8	188.0
87.5°	30.4	35.3	47.6	56.6	57.5	55.0	56.6	58.3	47.6	38.6	48.4
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°	723.2	723.2	723.2	723.2	723.2	723.2	723.2	723.2
2.5°	727.3	728.1	727.3	728.1	727.3	727.3	728.1	727.3
5°	745.4	746.2	745.4	744.5	743.7	744.5	744.5	744.5
7.5°	770.8	770.0	769.2	769.2	768.3	767.5	769.2	769.2
10°	802.0	801.2	799.5	799.5	798.7	798.7	798.7	798.7
12.5°	839.8	837.3	836.5	834.0	833.2	832.4	832.4	833.2
15°	879.2	876.7	875.9	871.8	871.8	871.0	871.0	871.0
17.5°	921.0	918.6	915.3	915.3	912.8	911.2	912.0	910.4
20°	963.7	960.4	958.8	958.0	954.7	954.7	954.7	953.9
22.5°	1005.6	1003.1	1000.7	997.4	994.1	993.3	993.3	992.4
25°	1048.3	1044.2	1039.2	1036.0	1032.7	1030.2	1030.2	1030.2
27.5°	1091.0	1086.0	1078.6	1074.5	1069.6	1067.1	1067.1	1066.3
30°	1136.1	1130.4	1123.8	1118.0	1111.5	1109.0	1108.2	1106.6
32.5°	1190.3	1184.5	1178.0	1169.8	1163.2	1159.1	1159.1	1156.6
35°	1259.2	1252.7	1247.7	1237.1	1228.9	1222.3	1223.1	1224.8
37.5°	1349.5	1341.3	1337.2	1324.1	1313.4	1306.8	1306.8	1306.0
40°	1464.5	1456.2	1447.2	1434.9	1421.8	1412.7	1410.3	1410.3
42.5°	1610.6	1603.2	1590.9	1573.6	1558.0	1548.2	1540.0	1540.8
45°	1793.6	1784.6	1767.4	1746.0	1727.1	1713.2	1701.7	1701.7
47.5°	2016.1	1997.2	1973.4	1954.5	1922.5	1901.2	1893.0	1891.3
50°	2269.7	2234.4	2204.9	2177.8	2144.1	2122.0	2109.7	2106.4
52.5°	2535.7	2498.8	2461.8	2426.5	2385.5	2362.5	2342.8	2341.2
55°	2824.7	2777.9	2731.1	2696.6	2648.2	2624.4	2604.7	2593.2
57.5°	3119.4	3066.8	3033.2	2983.9	2933.0	2915.8	2896.9	2882.9
60°	3451.0	3393.5	3349.2	3297.5	3264.7	3227.7	3209.7	3199.0
62.5°	3790.0	3736.7	3680.0	3630.8	3584.8	3559.4	3534.7	3522.4
65°	4134.8	4047.0	3979.6	3911.5	3857.3	3811.4	3772.8	3767.9
67.5°	4346.6	4235.8	4123.3	4024.0	3944.3	3879.5	3840.1	3826.1
69°	4363.8	4243.2	4102.8	3983.8	3891.8	3829.4	3782.6	3767.9
70°	4316.2	4194.7	4047.0	3918.9	3823.7	3755.5	3717.0	3692.3
72.5°	3968.2	3861.4	3719.4	3593.0	3506.8	3427.2	3388.6	3378.8
75°	3273.7	3160.4	3029.9	2969.1	2909.2	2859.1	2832.9	2830.4
77.5°	2324.7	2209.0	2109.7	2030.0	1965.2	1933.2	1940.6	1913.5
80°	1330.7	1179.6	1059.8	989.2	893.1	835.7	770.8	817.6
82.5°	572.2	462.2	352.2	286.5	218.4	173.2	142.8	133.0
85°	160.1	130.5	109.2	100.1	90.3	80.4	68.1	63.2
87.5°	54.2	51.7	46.0	46.0	41.9	35.3	24.6	22.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)