

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: P143967

Luminaire Tested: **LDRL-5WQ-F05-E-7060**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P143967  
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-F05-E-7060  
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE  
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE WIDE  
Light Source: (35) 5700K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12983.8 lumens  
Efficiency: N/A  
Efficacy: 97.4 lumens/watt  
Luminous Opening: Rectangular (W 0.83' x L: 1' x H: 0')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B4 - U0 - G2

Input Watts (W): 133.3  
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

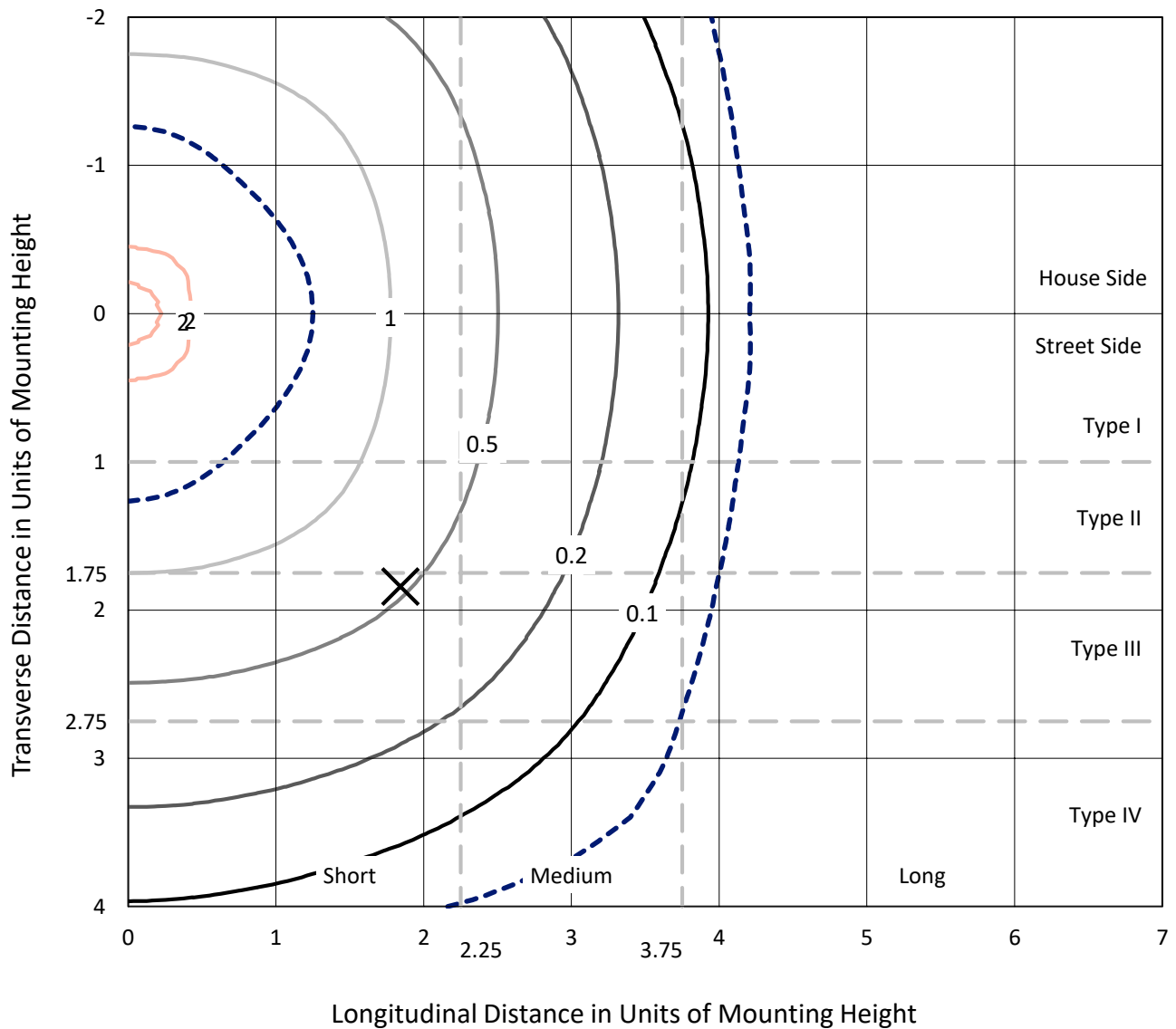


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### Iso-Footcandle Lines of Horizontal Illumination

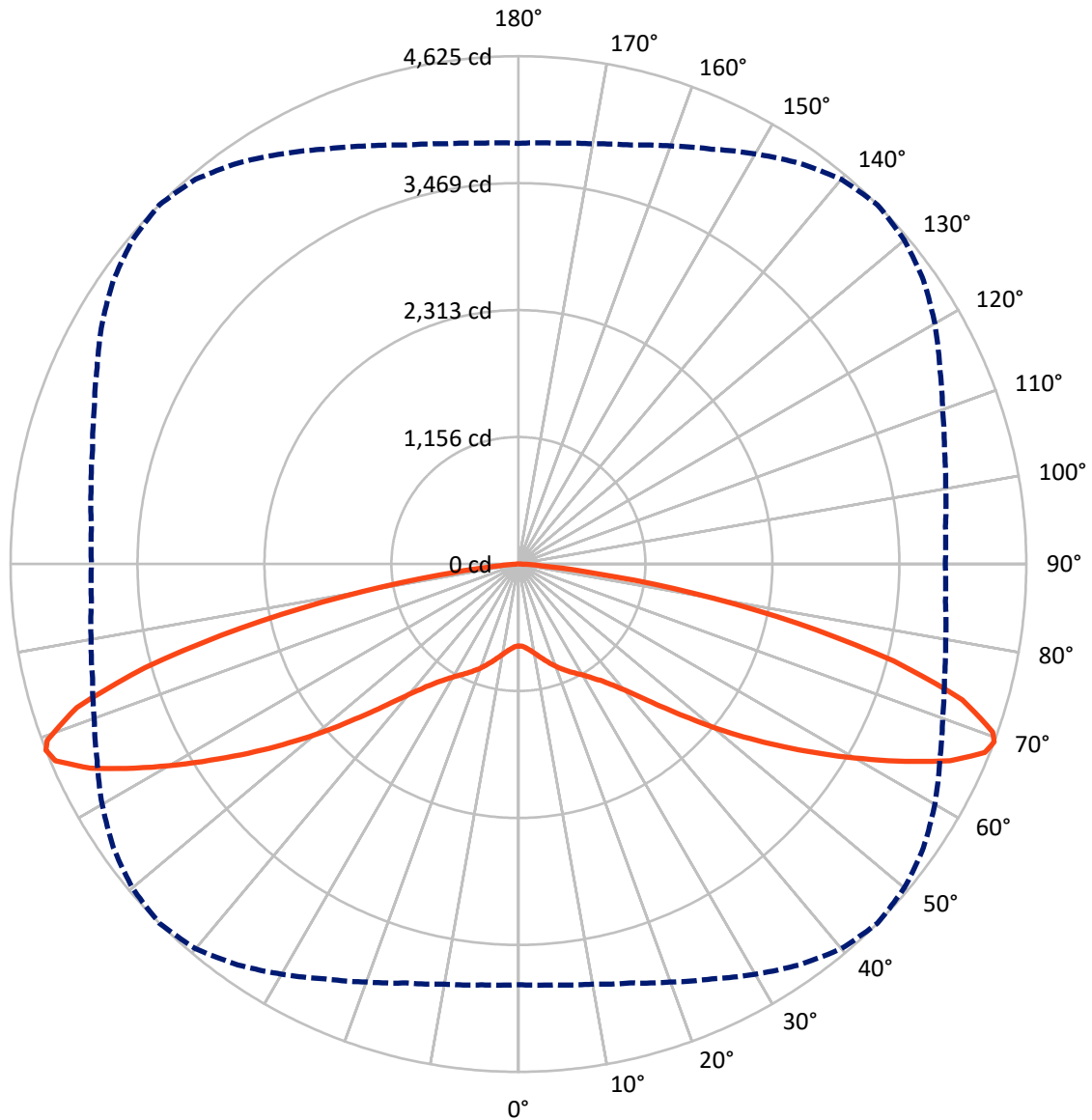
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 2.1 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	6491.9	0.0	6491.9
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	6491.9	0.0	6491.9
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	12983.8	0.0	12983.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	75.3	0.6
10°-20°	259.4	2.0
20°-30°	500.1	3.9
30°-40°	819.6	6.3
40°-50°	1425.1	11.0
50°-60°	2531.4	19.5
60°-70°	3930.2	30.3
70°-80°	3131.3	24.1
80°-90°	311.4	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°	12983.8	100.0
0°-180°	12983.8	100.0



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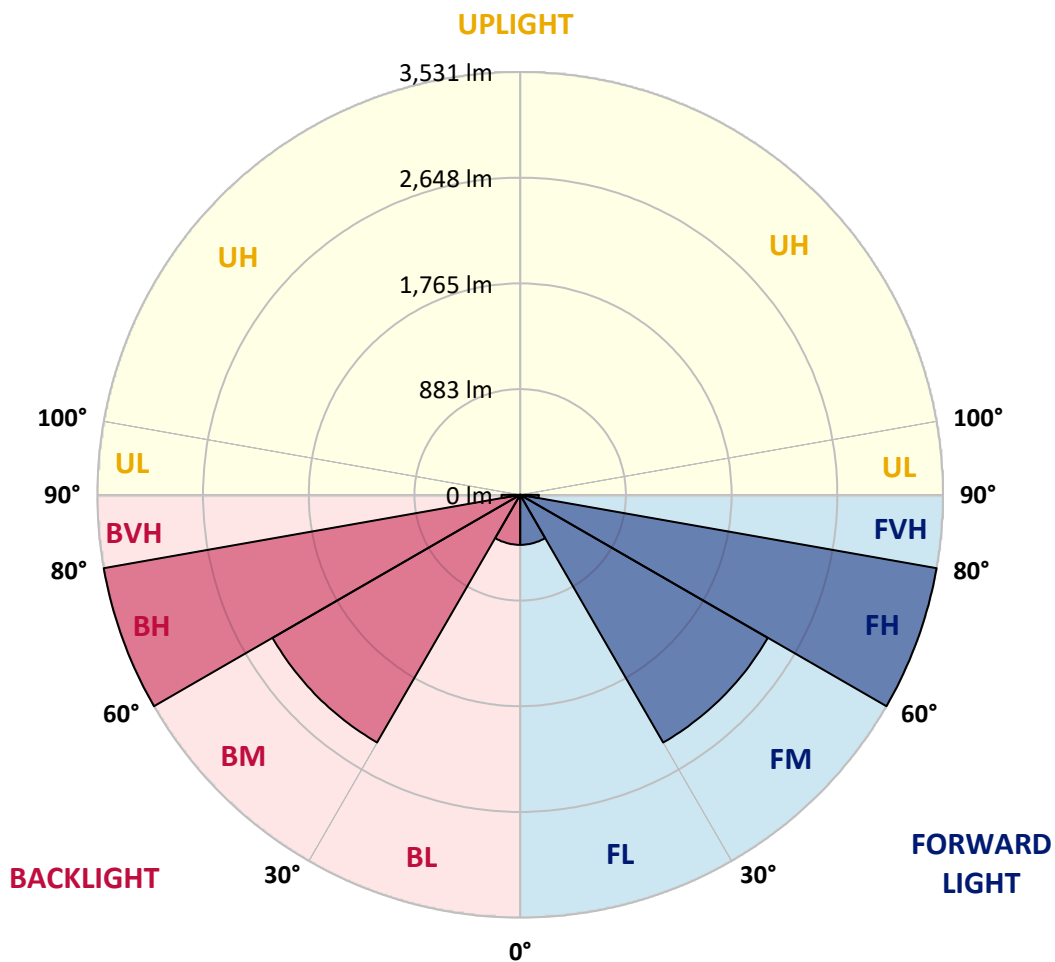
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	417.4	3.2			
FM	(30°-60°)	2388.0	18.4			
FH	(60°-80°)	3530.8	27.2			G2/5000
FVH	(80°-90°)	155.7	1.2			G2/225
BL	(0°-30°)	417.4	3.2	B1/500		
BM	(30°-60°)	2388.0	18.4	B2/2500		
BH	(60°-80°)	3530.8	27.2	B4/5000		G2/5000
BVH	(80°-90°)	155.7	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°	746.3	746.3	746.3	746.3	746.3	746.3	746.3	746.3	746.3	746.3	746.3
2.5°	752.2	752.2	752.2	751.4	751.4	750.5	751.4	750.5	750.5	750.5	750.5
5°	771.7	770.0	770.0	769.1	770.8	770.8	769.1	770.0	769.1	770.0	770.0
7.5°	796.3	796.3	796.3	795.4	797.1	796.3	795.4	796.3	796.3	795.4	795.4
10°	826.7	827.6	826.7	826.7	829.3	828.4	829.3	829.3	830.1	829.3	829.3
12.5°	862.3	862.3	863.2	864.0	864.9	865.7	868.3	867.4	869.1	867.4	867.4
15°	903.8	905.5	903.8	903.8	906.4	908.1	908.9	908.9	910.6	909.8	908.1
17.5°	947.9	948.7	947.9	947.0	949.6	952.1	953.0	953.0	955.5	953.8	953.8
20°	992.8	993.6	991.9	991.1	994.5	994.5	996.2	997.0	999.5	1000.4	997.9
22.5°	1034.3	1035.1	1034.3	1033.4	1036.8	1036.8	1039.4	1040.2	1043.6	1042.8	1042.8
25°	1074.9	1074.9	1074.1	1074.1	1077.5	1078.3	1080.9	1082.6	1086.0	1086.0	1086.0
27.5°	1112.2	1113.1	1111.4	1110.5	1117.3	1119.8	1121.5	1124.9	1127.5	1129.2	1128.3
30°	1154.6	1154.6	1153.7	1156.3	1160.5	1163.9	1167.3	1172.4	1177.4	1175.7	1175.7
32.5°	1204.5	1206.2	1205.4	1208.8	1213.9	1218.9	1223.2	1229.1	1231.6	1235.9	1232.5
35°	1271.5	1274.8	1273.2	1276.5	1280.8	1284.2	1293.5	1299.4	1303.6	1306.2	1304.5
37.5°	1355.3	1353.6	1357.0	1357.9	1366.3	1370.6	1381.6	1390.1	1396.8	1399.4	1397.7
40°	1459.5	1457.0	1461.2	1465.4	1476.5	1480.7	1493.4	1506.1	1515.4	1518.8	1517.1
42.5°	1584.0	1587.4	1594.2	1600.1	1615.4	1627.2	1641.6	1660.3	1670.4	1674.7	1668.7
45°	1747.5	1741.6	1754.3	1769.5	1778.0	1804.3	1828.0	1847.5	1864.4	1871.2	1864.4
47.5°	1933.9	1933.0	1948.3	1966.9	1988.9	2013.5	2041.5	2066.9	2096.5	2098.2	2089.7
50°	2139.7	2156.7	2165.1	2183.8	2224.4	2254.9	2290.5	2328.6	2355.7	2364.2	2348.9
52.5°	2387.9	2400.6	2405.7	2437.0	2474.3	2511.6	2561.6	2607.3	2638.6	2642.0	2634.4
55°	2657.3	2667.4	2676.8	2714.9	2755.5	2788.6	2852.1	2897.0	2928.3	2940.2	2935.1
57.5°	2936.0	2945.3	2957.1	2998.6	3040.2	3086.7	3146.9	3199.4	3235.8	3257.9	3251.9
60°	3245.1	3245.1	3272.3	3313.8	3347.6	3402.7	3465.4	3526.4	3566.2	3600.9	3591.6
62.5°	3570.4	3579.7	3606.0	3639.9	3675.5	3726.3	3797.4	3870.3	3931.3	3957.5	3956.7
65°	3816.9	3833.9	3868.6	3907.6	3966.9	4027.0	4116.8	4207.4	4281.1	4319.2	4319.2
67.5°	3888.9	3899.9	3943.1	4002.4	4088.0	4183.7	4305.7	4431.9	4532.7	4582.7	4551.3
69°	3831.3	3847.4	3885.5	3949.9	4051.6	4168.5	4313.3	4456.5	4573.4	4625.0	4588.6
70°	3764.4	3782.2	3820.3	3883.8	3988.9	4113.4	4258.2	4412.4	4537.8	4581.8	4540.3
72.5°	3491.6	3513.7	3540.8	3595.8	3690.7	3807.6	3938.1	4073.6	4193.9	4228.6	4176.9
75°	3026.6	3030.8	3044.4	3085.0	3118.9	3201.9	3312.9	3420.5	3511.1	3531.5	3476.4
77.5°	2142.3	2119.4	2096.5	2131.2	2158.3	2265.1	2385.4	2473.5	2568.3	2597.1	2541.2
80°	939.4	930.9	963.1	1008.9	1128.3	1199.5	1317.2	1443.4	1523.9	1617.9	1517.1
82.5°	185.5	195.7	226.2	279.5	344.8	433.7	510.8	598.0	676.8	712.4	676.0
85°	75.4	82.2	93.2	104.2	111.8	125.4	147.4	183.0	201.6	204.1	194.0
87.5°	31.3	36.4	49.1	58.4	59.3	56.8	58.4	60.1	49.1	39.8	50.0
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°	746.3	746.3	746.3	746.3	746.3	746.3	746.3	746.3
2.5°	750.5	751.4	750.5	751.4	750.5	750.5	751.4	750.5
5°	769.1	770.0	769.1	768.3	767.5	768.3	768.3	768.3
7.5°	795.4	794.6	793.7	793.7	792.9	792.0	793.7	793.7
10°	827.6	826.7	825.1	825.1	824.2	824.2	824.2	824.2
12.5°	866.6	864.0	863.2	860.6	859.8	858.9	858.9	859.8
15°	907.2	904.7	903.8	899.6	899.6	898.7	898.7	898.7
17.5°	950.4	947.9	944.5	944.5	941.9	940.3	941.1	939.4
20°	994.5	991.1	989.4	988.5	985.1	985.1	985.1	984.3
22.5°	1037.7	1035.1	1032.6	1029.2	1025.8	1025.0	1025.0	1024.1
25°	1081.7	1077.5	1072.4	1069.0	1065.6	1063.1	1063.1	1063.1
27.5°	1125.8	1120.7	1113.1	1108.8	1103.7	1101.2	1101.2	1100.4
30°	1172.4	1166.4	1159.6	1153.7	1146.9	1144.4	1143.6	1141.9
32.5°	1228.3	1222.3	1215.6	1207.1	1200.3	1196.1	1196.1	1193.5
35°	1299.4	1292.6	1287.6	1276.5	1268.1	1261.3	1262.1	1263.8
37.5°	1392.6	1384.1	1379.9	1366.3	1355.3	1348.5	1348.5	1347.7
40°	1511.2	1502.7	1493.4	1480.7	1467.1	1457.8	1455.3	1455.3
42.5°	1662.0	1654.3	1641.6	1623.8	1607.7	1597.6	1589.1	1590.0
45°	1850.9	1841.5	1823.8	1801.7	1782.2	1767.8	1756.0	1756.0
47.5°	2080.4	2060.9	2036.4	2016.9	1983.9	1961.8	1953.4	1951.7
50°	2342.2	2305.7	2275.2	2247.3	2212.6	2189.7	2177.0	2173.6
52.5°	2616.6	2578.5	2540.4	2504.0	2461.6	2437.9	2417.6	2415.9
55°	2914.8	2866.5	2818.2	2782.6	2732.7	2708.1	2687.8	2675.9
57.5°	3218.9	3164.7	3129.9	3079.1	3026.6	3008.8	2989.3	2974.9
60°	3561.1	3501.8	3456.1	3402.7	3368.8	3330.7	3312.1	3301.1
62.5°	3910.9	3855.9	3797.4	3746.6	3699.2	3672.9	3647.5	3634.8
65°	4266.7	4176.1	4106.6	4036.3	3980.4	3933.0	3893.2	3888.1
67.5°	4485.3	4370.9	4254.9	4152.4	4070.2	4003.3	3962.6	3948.2
69°	4503.1	4378.5	4233.7	4110.9	4016.0	3951.6	3903.3	3888.1
70°	4453.9	4328.6	4176.1	4043.9	3945.7	3875.4	3835.6	3810.1
72.5°	4094.8	3984.6	3838.1	3707.6	3618.7	3536.5	3496.7	3486.6
75°	3378.1	3261.2	3126.6	3063.9	3002.0	2950.4	2923.3	2920.7
77.5°	2398.9	2279.5	2177.0	2094.8	2027.9	1994.9	2002.5	1974.5
80°	1373.1	1217.2	1093.6	1020.7	921.6	862.3	795.4	843.7
82.5°	590.4	476.9	363.4	295.6	225.3	178.7	147.4	137.2
85°	165.2	134.7	112.7	103.3	93.2	83.0	70.3	65.2
87.5°	55.9	53.4	47.4	47.4	43.2	36.4	25.4	22.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)