

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: P143659

Luminaire Tested: **LDRL-5MQ-E05-E-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P143659  
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-E05-E-7030  
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE  
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM  
Light Source: (105) 3000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14192 lumens  
Efficiency: N/A  
Efficacy: 111.5 lumens/watt  
Luminous Opening: Rectangular (W 0.83' x L: 1' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B4 - U0 - G2

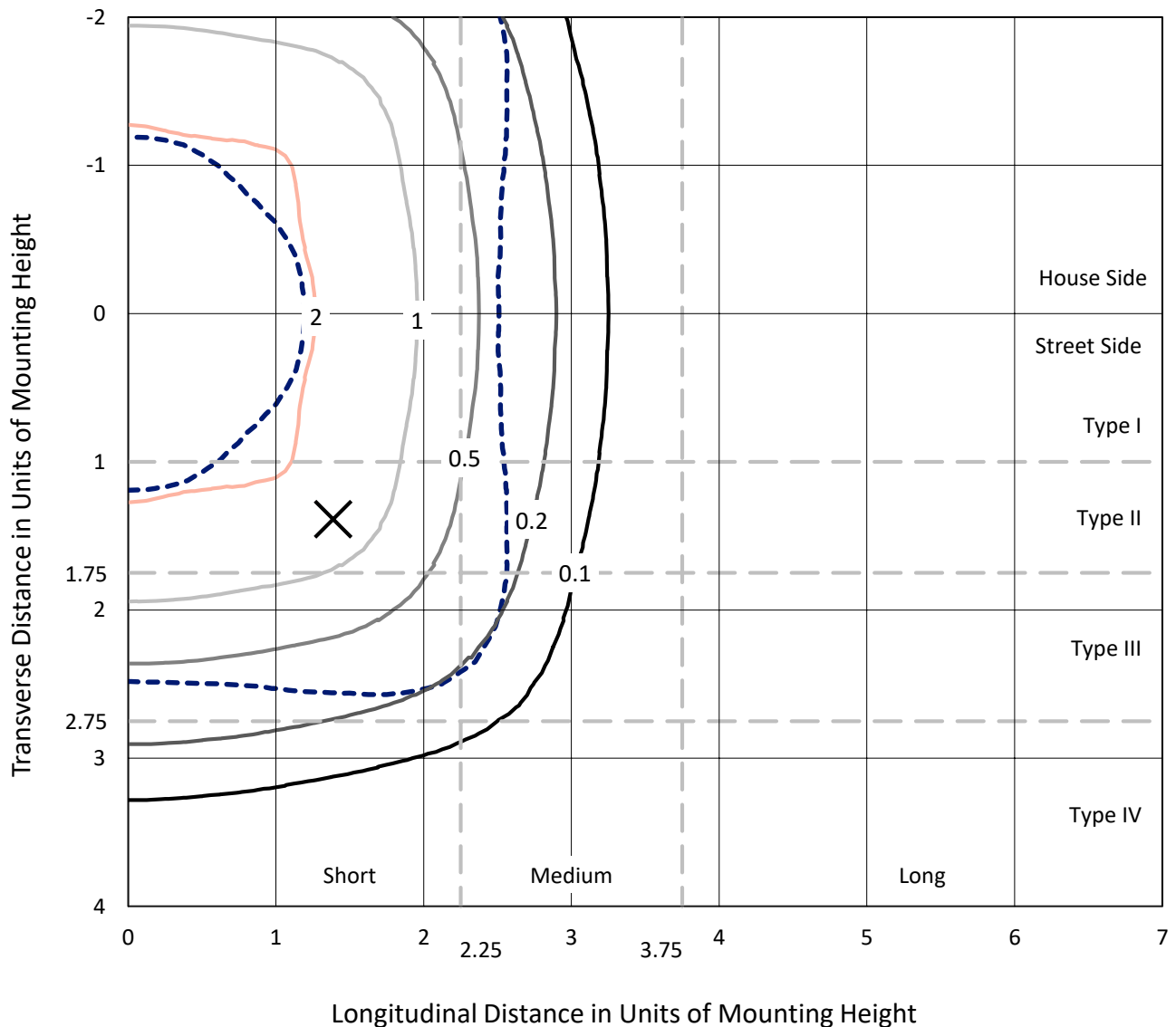
Input Watts (W): 127.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

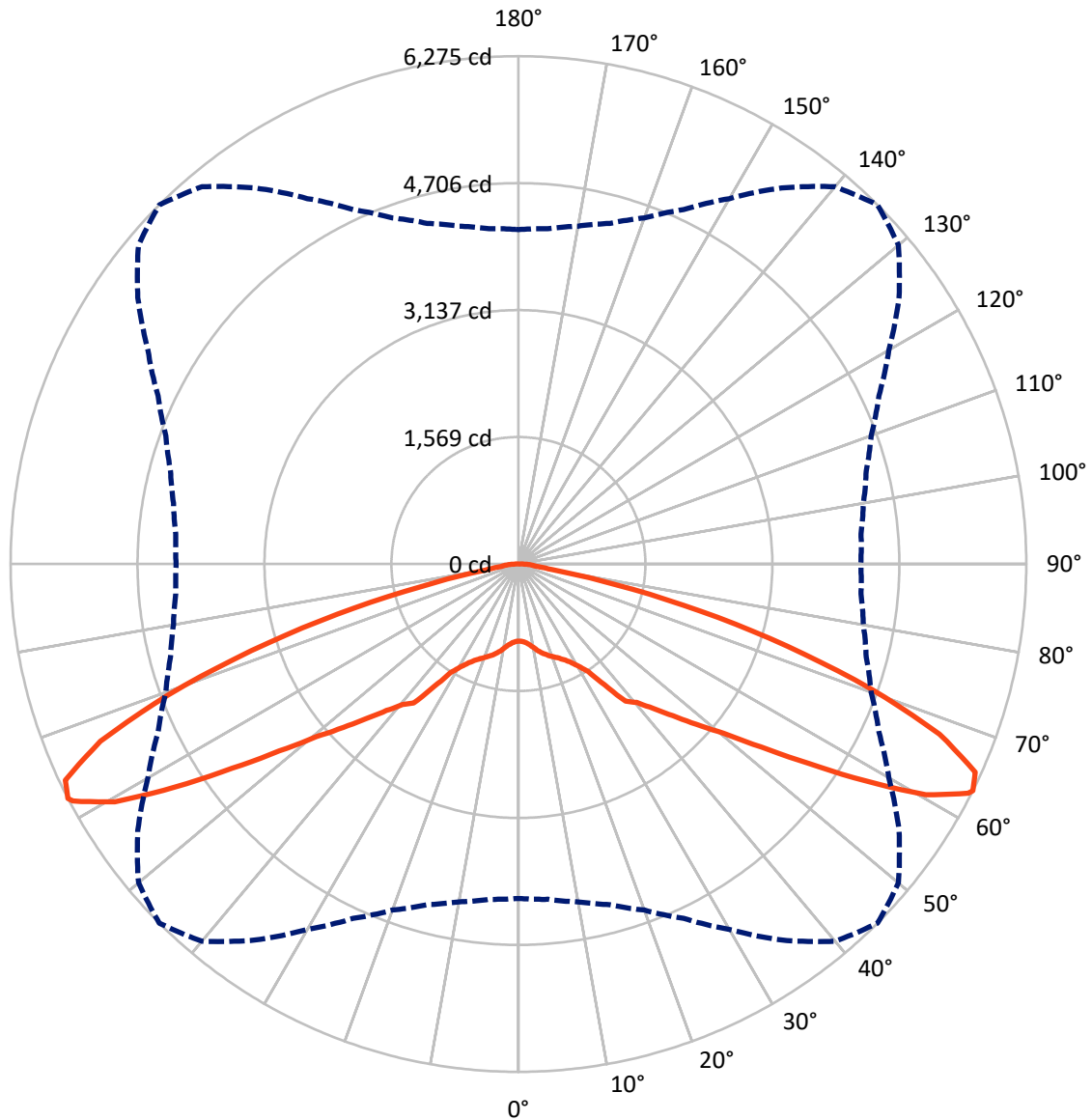
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 2.6 fc  
 Type V - Short - Full Cutoff

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### Luminous Intensity Polar Plot



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

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7096.0	0.0	7096.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	7096.0	0.0	7096.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	14192.0	0.0	14192.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.9	0.7
10°-20°	327.6	2.3
20°-30°	625.8	4.4
30°-40°	1192.2	8.4
40°-50°	2053.0	14.5
50°-60°	3668.6	25.8
60°-70°	4468.4	31.5
70°-80°	1591.7	11.2
80°-90°	168.8	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°	14192.0	100.0
0°-180°	14192.0	100.0



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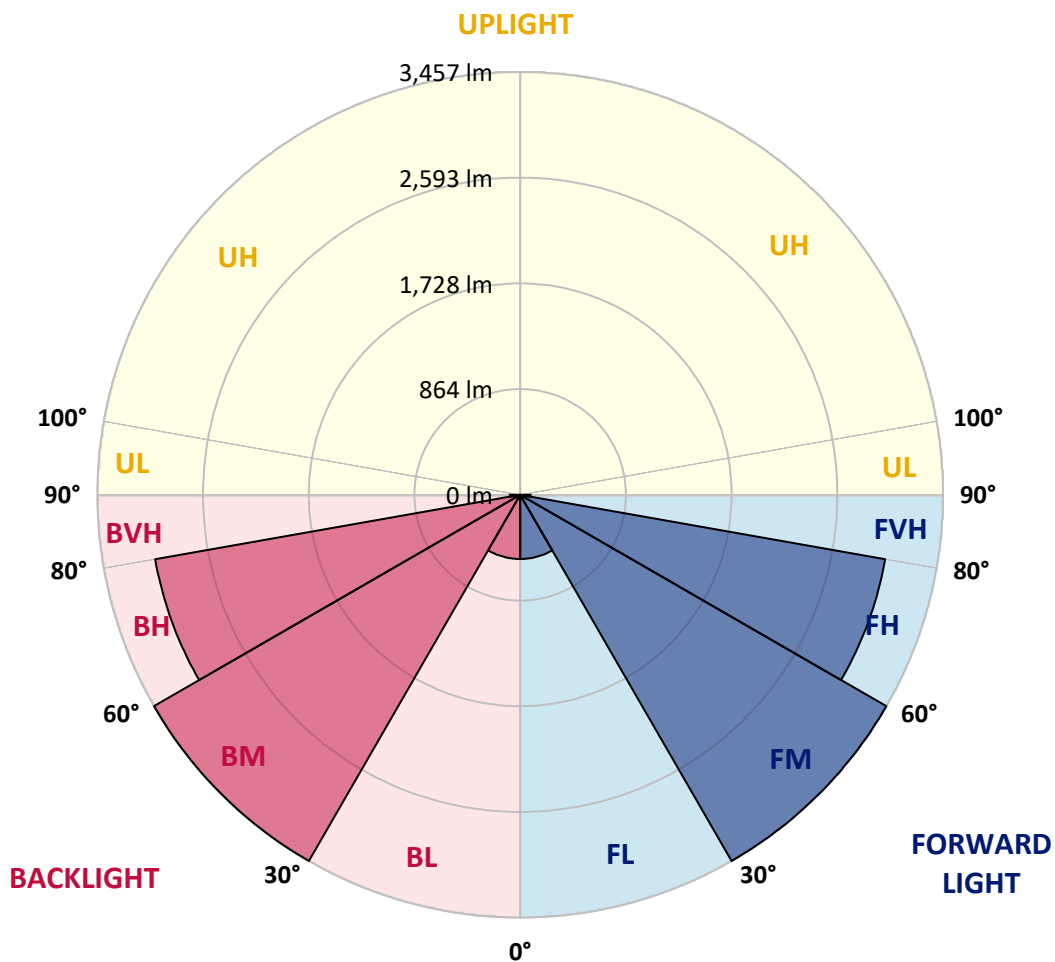
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	524.7	3.7			
FM (30°-60°)	3456.9	24.4			
FH (60°-80°)	3030.0	21.4			G2/5000
FVH (80°-90°)	84.4	0.6			G1/100
BL (0°-30°)	524.7	3.7	B2/1000		
BM (30°-60°)	3456.9	24.4	B3/5000		
BH (60°-80°)	3030.0	21.4	B4/5000		G2/5000
BVH (80°-90°)	84.4	0.6			G1/100
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°	952.6	952.6	952.6	952.6	952.6	952.6	952.6	952.6	952.6	952.6	952.6
2.5°	959.9	959.0	959.9	958.1	958.1	957.2	957.2	957.2	955.4	957.2	955.4
5°	980.0	979.1	980.0	978.2	978.2	976.4	976.4	976.4	974.5	976.4	975.5
7.5°	1014.7	1016.6	1014.7	1012.9	1012.9	1011.1	1010.2	1010.2	1009.3	1008.3	1010.2
10°	1063.1	1065.0	1062.2	1060.4	1059.5	1058.6	1056.7	1055.8	1055.8	1052.2	1053.1
12.5°	1114.3	1114.3	1111.5	1110.6	1110.6	1108.8	1105.2	1104.2	1104.2	1102.4	1100.6
15°	1160.0	1160.0	1158.1	1154.5	1155.4	1152.6	1149.9	1148.1	1148.1	1146.3	1144.4
17.5°	1202.0	1202.0	1199.2	1195.6	1193.7	1192.8	1189.2	1187.4	1187.4	1185.5	1183.7
20°	1244.0	1245.8	1241.2	1237.6	1233.9	1230.3	1226.6	1224.8	1222.1	1223.0	1222.1
22.5°	1294.2	1295.1	1287.8	1283.3	1276.0	1271.4	1265.9	1264.1	1260.4	1260.4	1262.3
25°	1358.2	1357.2	1349.0	1340.8	1332.6	1323.4	1315.2	1313.4	1309.7	1308.8	1309.7
27.5°	1442.2	1441.3	1431.2	1420.3	1409.3	1395.6	1385.6	1380.1	1377.3	1373.7	1375.5
30°	1545.4	1547.2	1535.3	1522.6	1508.9	1492.4	1479.6	1472.3	1466.8	1463.2	1465.0
32.5°	1755.5	1753.6	1735.4	1708.0	1678.7	1640.4	1609.3	1596.5	1586.5	1582.8	1585.6
35°	1966.4	1964.6	1957.3	1949.1	1941.8	1917.1	1894.3	1867.8	1845.9	1832.2	1835.8
37.5°	2066.0	2066.0	2060.5	2058.7	2058.7	2073.3	2091.6	2124.5	2150.0	2151.9	2143.6
40°	2221.3	2221.3	2212.1	2207.6	2204.8	2209.4	2221.3	2233.1	2245.9	2248.7	2239.5
42.5°	2403.9	2395.7	2389.3	2380.2	2379.3	2383.8	2396.6	2411.2	2424.0	2435.0	2415.8
45°	2601.2	2593.9	2587.5	2582.0	2585.7	2597.6	2614.9	2640.5	2658.8	2675.2	2659.7
47.5°	2821.3	2805.8	2812.2	2806.7	2815.9	2839.6	2870.7	2909.0	2928.2	2957.4	2932.8
50°	3095.3	3099.0	3095.3	3095.3	3106.3	3137.4	3183.0	3235.1	3268.0	3284.4	3269.8
52.5°	3502.7	3491.7	3467.1	3474.4	3489.0	3538.3	3597.7	3670.8	3712.8	3752.0	3706.4
55°	3948.4	3950.2	3946.6	3956.6	3984.9	4035.2	4110.1	4220.6	4273.6	4342.1	4287.3
57.5°	4317.4	4330.2	4352.1	4382.3	4443.4	4527.5	4674.5	4843.5	4984.2	5058.1	4972.3
60°	4437.1	4449.8	4502.8	4586.8	4701.9	4873.6	5112.0	5401.6	5654.6	5786.1	5673.7
62.5°	4206.9	4230.6	4309.2	4425.2	4615.2	4883.7	5238.1	5666.4	6056.4	6236.4	6100.3
63°	4132.0	4158.5	4238.9	4356.7	4550.3	4830.7	5213.4	5671.9	6084.7	6274.7	6127.7
65°	3799.5	3816.9	3901.8	4036.1	4251.6	4543.9	4969.5	5512.1	5982.4	6202.6	6046.4
67.5°	3276.2	3299.0	3376.7	3492.7	3701.8	4011.4	4429.7	4970.5	5433.5	5609.8	5476.4
70°	2627.7	2653.3	2717.2	2825.0	2989.4	3276.2	3634.2	4139.3	4487.3	4625.2	4482.7
72.5°	1846.8	1857.8	1904.3	2017.6	2140.9	2369.2	2653.3	3046.0	3380.3	3470.7	3333.7
75°	781.8	782.7	843.9	916.1	1070.4	1297.9	1545.4	1883.3	2183.8	2324.5	2150.9
77.5°	250.3	253.0	270.4	296.8	348.0	449.4	632.0	817.4	1093.3	1226.6	1064.1
80°	209.2	212.8	220.1	225.6	229.3	234.7	255.7	285.0	358.9	417.4	337.0
82.5°	179.9	186.3	202.8	209.2	212.8	214.6	217.4	216.5	211.9	210.1	211.0
85°	137.0	152.5	170.8	185.4	187.2	188.2	193.6	195.5	180.8	166.2	180.8
87.5°	59.4	76.7	117.8	130.6	127.9	118.7	127.0	134.3	122.4	89.5	119.6
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°	952.6	952.6	952.6	952.6	952.6	952.6	952.6	952.6
2.5°	956.3	958.1	958.1	958.1	958.1	959.0	959.9	959.0
5°	976.4	978.2	977.3	978.2	978.2	979.1	980.0	979.1
7.5°	1011.1	1011.1	1011.1	1012.9	1012.9	1014.7	1014.7	1014.7
10°	1054.0	1053.1	1053.1	1054.9	1056.7	1057.7	1059.5	1058.6
12.5°	1100.6	1098.8	1099.7	1101.5	1103.3	1104.2	1106.1	1105.2
15°	1142.6	1141.7	1141.7	1144.4	1145.3	1146.3	1149.9	1149.9
17.5°	1182.8	1182.8	1182.8	1186.4	1187.4	1191.0	1193.7	1193.7
20°	1223.0	1223.0	1223.0	1226.6	1229.4	1234.8	1240.3	1239.4
22.5°	1264.1	1265.0	1266.8	1270.5	1276.9	1285.1	1289.7	1289.7
25°	1315.2	1318.9	1322.5	1328.0	1337.1	1348.1	1355.4	1358.2
27.5°	1381.0	1389.2	1398.3	1406.6	1416.6	1430.3	1440.4	1442.2
30°	1470.5	1482.4	1497.0	1507.9	1520.7	1536.3	1548.1	1554.5
32.5°	1597.4	1626.7	1645.9	1685.1	1708.9	1735.4	1757.3	1766.4
35°	1858.7	1887.9	1913.5	1940.0	1945.4	1954.6	1966.4	1969.2
37.5°	2117.1	2093.4	2070.6	2069.7	2063.3	2065.1	2068.7	2073.3
40°	2229.5	2222.2	2210.3	2214.9	2215.8	2215.8	2223.1	2224.0
42.5°	2410.3	2393.0	2379.3	2390.2	2392.1	2393.9	2401.2	2409.4
45°	2640.5	2614.0	2596.7	2590.3	2596.7	2594.8	2604.9	2606.7
47.5°	2903.5	2868.8	2829.6	2816.8	2813.1	2804.9	2822.3	2820.4
50°	3226.0	3170.2	3122.7	3104.5	3095.3	3090.8	3095.3	3095.3
52.5°	3634.2	3578.5	3513.7	3492.7	3485.3	3495.4	3480.8	3496.3
55°	4195.9	4105.5	4016.9	3988.6	3984.0	3979.5	3981.3	3987.7
57.5°	4828.0	4667.2	4548.5	4479.1	4434.3	4412.4	4388.6	4385.0
60°	5438.1	5145.8	4920.2	4766.8	4658.1	4575.9	4533.9	4519.3
62.5°	5732.2	5304.7	4954.0	4692.8	4531.1	4396.9	4322.9	4303.7
63°	5740.4	5284.6	4912.9	4637.1	4448.9	4328.4	4249.8	4229.7
65°	5587.9	5069.1	4633.4	4330.2	4131.1	4005.0	3908.2	3887.2
67.5°	5032.6	4529.3	4083.6	3775.8	3560.2	3458.9	3352.0	3349.3
70°	4130.2	3680.8	3305.4	3022.3	2842.3	2741.9	2633.2	2635.9
72.5°	3019.5	2620.4	2361.9	2140.9	1950.9	1855.9	1753.6	1763.7
75°	1817.6	1461.4	1228.5	1036.7	841.2	724.3	645.7	601.0
77.5°	777.3	531.6	381.8	303.2	255.7	236.6	227.4	224.7
80°	270.4	239.3	225.6	221.9	219.2	215.6	209.2	202.8
82.5°	219.2	219.2	211.9	211.0	202.8	196.4	179.9	171.7
85°	194.5	190.9	184.5	181.8	179.9	166.2	145.2	134.3
87.5°	128.8	119.6	114.2	116.9	113.3	101.4	62.1	49.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)