

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: P143962

Luminaire Tested: **LDRL-5WQ-E05-E-7060**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P143962  
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-E05-E-7060  
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE  
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE WIDE  
Light Source: (105) 5700K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15727.9 lumens  
Efficiency: N/A  
Efficacy: 123.6 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): 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

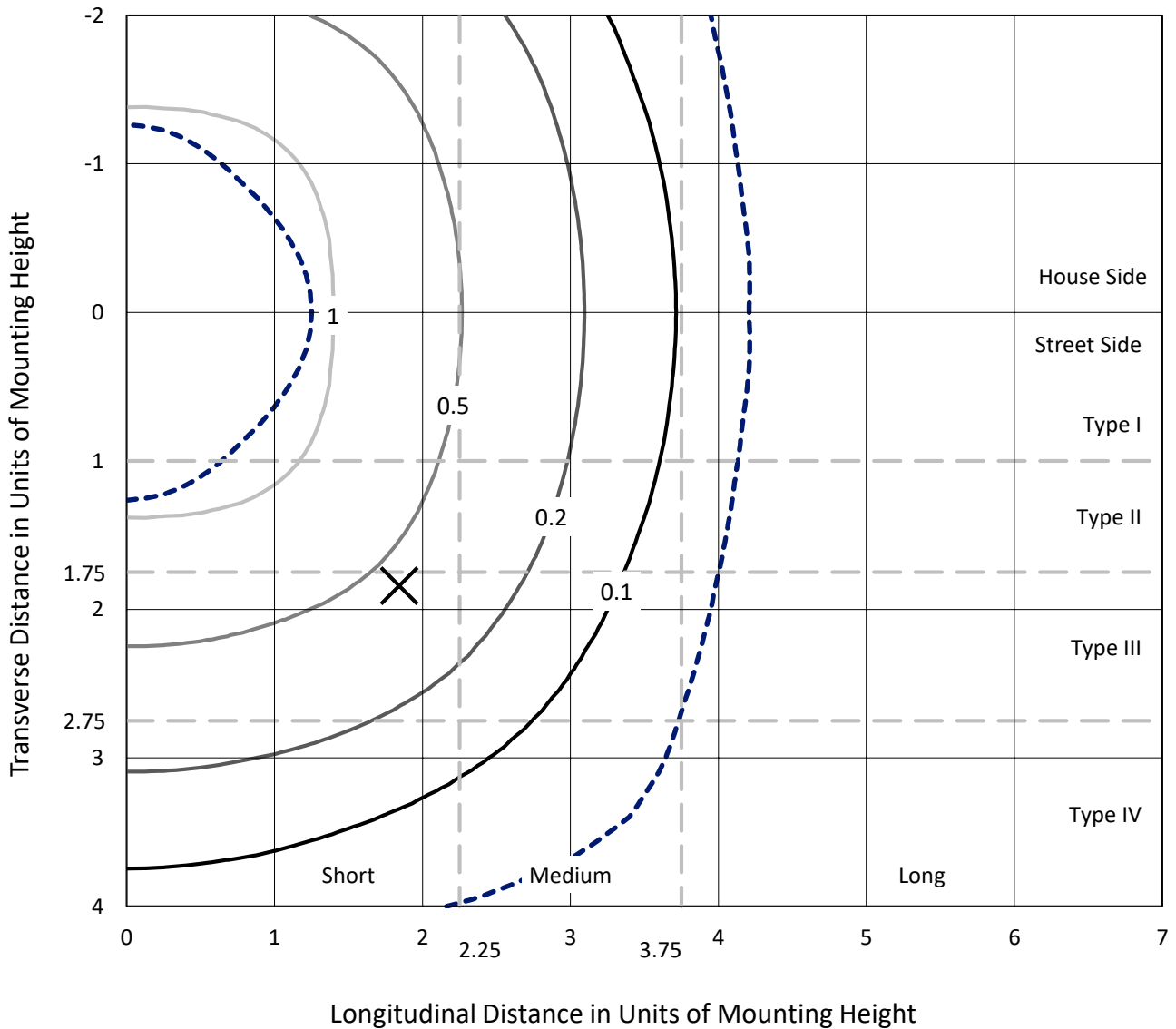


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### Iso-Footcandle Lines of Horizontal Illumination

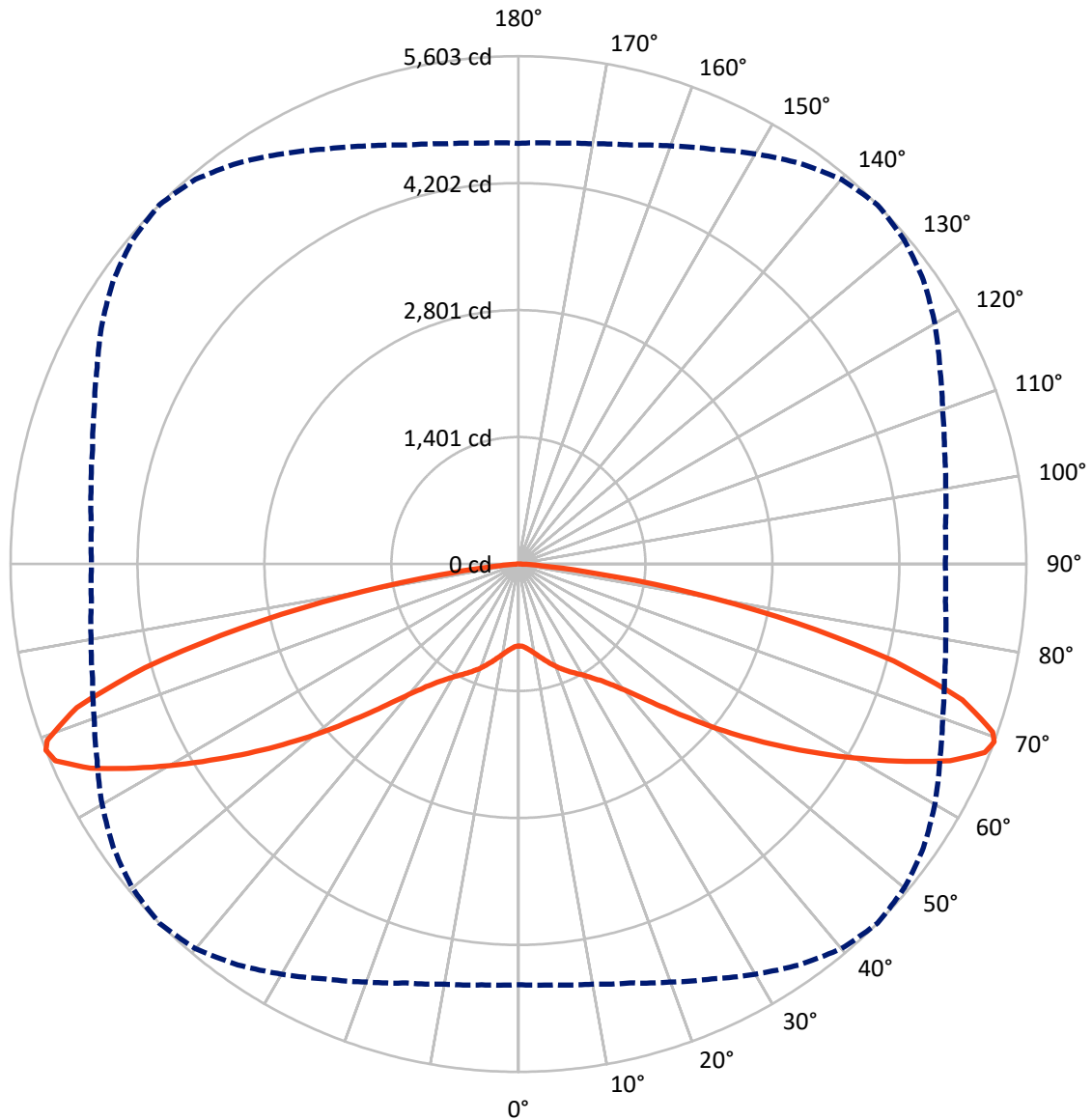
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.6 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	7864.0	0.0	7864.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	7864.0	0.0	7864.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	15727.9	0.0	15727.9
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	91.2	0.6
10°-20°	314.3	2.0
20°-30°	605.8	3.9
30°-40°	992.8	6.3
40°-50°	1726.2	11.0
50°-60°	3066.4	19.5
60°-70°	4760.8	30.3
70°-80°	3793.1	24.1
80°-90°	377.2	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°	15727.9	100.0
0°-180°	15727.9	100.0



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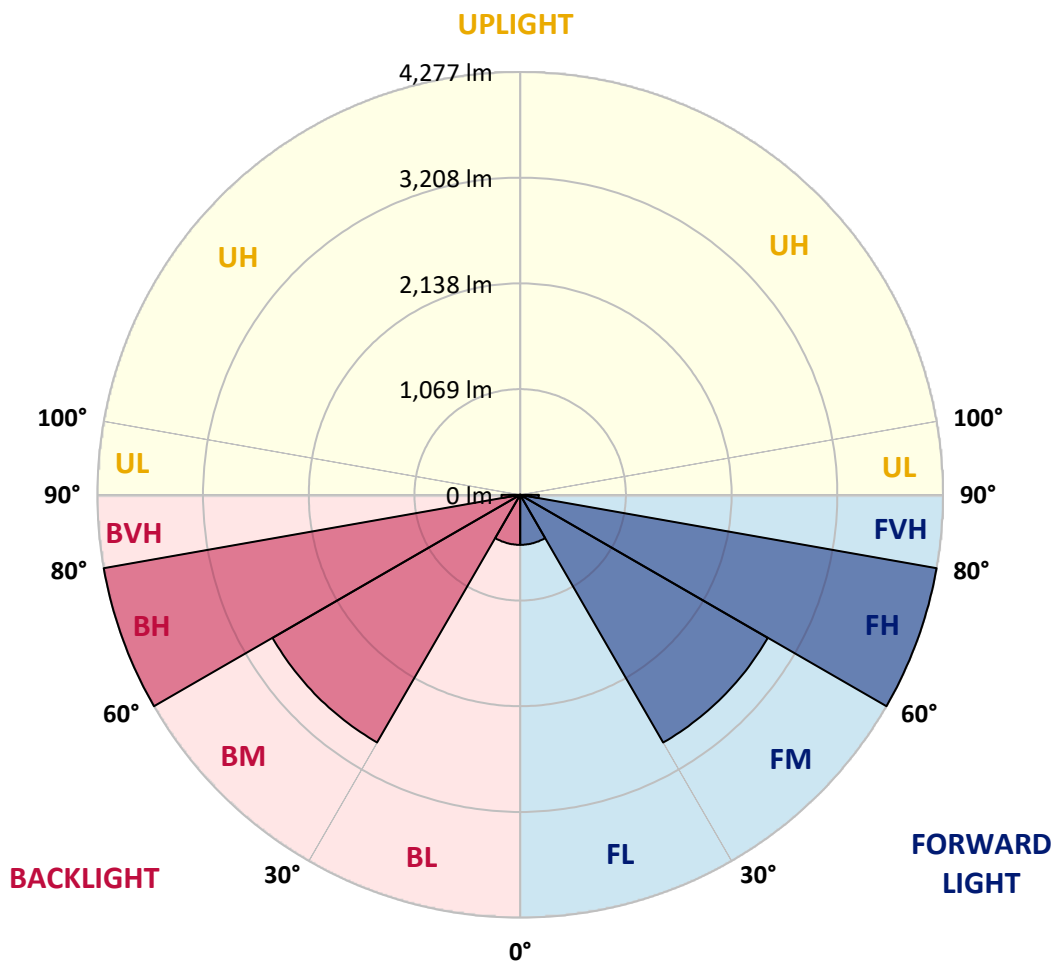
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	505.6	3.2			
FM (30°-60°)	2892.7	18.4			
FH (60°-80°)	4277.0	27.2			G2/5000
FVH (80°-90°)	188.6	1.2			G2/225
BL (0°-30°)	505.6	3.2	B2/1000		
BM (30°-60°)	2892.7	18.4	B3/5000		
BH (60°-80°)	4277.0	27.2	B4/5000		G2/5000
BVH (80°-90°)	188.6	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°	904.0	904.0	904.0	904.0	904.0	904.0	904.0	904.0	904.0	904.0	904.0
2.5°	911.2	911.2	911.2	910.2	910.2	909.1	910.2	909.1	909.1	909.1	909.1
5°	934.8	932.7	932.7	931.7	933.8	933.8	931.7	932.7	931.7	932.7	932.7
7.5°	964.5	964.5	964.5	963.5	965.6	964.5	963.5	964.5	964.5	963.5	963.5
10°	1001.5	1002.5	1001.5	1001.5	1004.6	1003.5	1004.6	1004.6	1005.6	1004.6	1004.6
12.5°	1044.6	1044.6	1045.6	1046.6	1047.7	1048.7	1051.8	1050.7	1052.8	1050.7	1050.7
15°	1094.9	1096.9	1094.9	1094.9	1097.9	1100.0	1101.0	1101.0	1103.1	1102.0	1100.0
17.5°	1148.2	1149.2	1148.2	1147.2	1150.3	1153.3	1154.4	1154.4	1157.4	1155.4	1155.4
20°	1202.6	1203.6	1201.6	1200.5	1204.6	1204.6	1206.7	1207.7	1210.8	1211.8	1208.8
22.5°	1252.9	1253.9	1252.9	1251.8	1256.0	1256.0	1259.0	1260.1	1264.2	1263.1	1263.1
25°	1302.1	1302.1	1301.1	1301.1	1305.2	1306.2	1309.3	1311.4	1315.5	1315.5	1315.5
27.5°	1347.3	1348.3	1346.3	1345.2	1353.4	1356.5	1358.6	1362.7	1365.7	1367.8	1366.8
30°	1398.6	1398.6	1397.6	1400.6	1405.8	1409.9	1414.0	1420.1	1426.3	1424.2	1424.2
32.5°	1459.1	1461.2	1460.1	1464.3	1470.4	1476.6	1481.7	1488.9	1492.0	1497.1	1493.0
35°	1540.2	1544.3	1542.2	1546.3	1551.5	1555.6	1566.9	1574.0	1579.2	1582.3	1580.2
37.5°	1641.8	1639.7	1643.8	1644.8	1655.1	1660.2	1673.6	1683.8	1692.0	1695.1	1693.1
40°	1768.0	1764.9	1770.0	1775.2	1788.5	1793.6	1809.0	1824.4	1835.7	1839.8	1837.8
42.5°	1918.8	1922.9	1931.1	1938.3	1956.8	1971.1	1988.6	2011.2	2023.5	2028.6	2021.4
45°	2116.9	2109.7	2125.1	2143.5	2153.8	2185.6	2214.3	2237.9	2258.5	2266.7	2258.5
47.5°	2342.6	2341.6	2360.0	2382.6	2409.3	2439.1	2472.9	2503.7	2539.6	2541.7	2531.4
50°	2591.9	2612.5	2622.7	2645.3	2694.6	2731.5	2774.6	2820.8	2853.6	2863.9	2845.4
52.5°	2892.6	2908.0	2914.1	2952.1	2997.3	3042.4	3102.9	3158.4	3196.3	3200.4	3191.2
55°	3218.9	3231.2	3242.5	3288.7	3337.9	3377.9	3454.9	3509.3	3547.2	3561.6	3555.5
57.5°	3556.5	3567.8	3582.1	3632.4	3682.7	3739.1	3812.0	3875.6	3919.7	3946.4	3939.2
60°	3931.0	3931.0	3963.8	4014.1	4055.2	4121.9	4197.8	4271.7	4319.9	4362.0	4350.7
62.5°	4325.0	4336.3	4368.1	4409.2	4452.3	4513.8	4600.0	4688.3	4762.2	4794.0	4792.9
65°	4623.6	4644.2	4686.2	4733.4	4805.3	4878.1	4986.9	5096.7	5185.9	5232.1	5232.1
67.5°	4710.9	4724.2	4776.5	4848.3	4952.0	5067.9	5215.7	5368.6	5490.7	5551.2	5513.3
69°	4641.1	4660.6	4706.7	4784.7	4907.9	5049.5	5224.9	5398.3	5539.9	5602.5	5558.4
70°	4560.0	4581.6	4627.7	4704.7	4831.9	4982.8	5158.2	5345.0	5496.8	5550.2	5499.9
72.5°	4229.6	4256.3	4289.1	4355.8	4470.7	4612.3	4770.4	4934.5	5080.2	5122.3	5059.7
75°	3666.3	3671.4	3687.8	3737.1	3778.1	3878.7	4013.1	4143.4	4253.2	4277.8	4211.1
77.5°	2595.0	2567.3	2539.6	2581.7	2614.5	2743.8	2889.5	2996.2	3111.2	3146.0	3078.3
80°	1138.0	1127.7	1166.7	1222.1	1366.8	1453.0	1595.6	1748.5	1846.0	1959.9	1837.8
82.5°	224.7	237.0	274.0	338.6	417.6	525.4	618.7	724.4	819.9	863.0	818.8
85°	91.3	99.5	112.9	126.2	135.4	151.9	178.5	221.6	244.2	247.3	235.0
87.5°	38.0	44.1	59.5	70.8	71.8	68.7	70.8	72.9	59.5	48.2	60.5
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°	904.0	904.0	904.0	904.0	904.0	904.0	904.0	904.0
2.5°	909.1	910.2	909.1	910.2	909.1	909.1	910.2	909.1
5°	931.7	932.7	931.7	930.7	929.7	930.7	930.7	930.7
7.5°	963.5	962.5	961.5	961.5	960.4	959.4	961.5	961.5
10°	1002.5	1001.5	999.4	999.4	998.4	998.4	998.4	998.4
12.5°	1049.7	1046.6	1045.6	1042.5	1041.5	1040.5	1040.5	1041.5
15°	1099.0	1095.9	1094.9	1089.7	1089.7	1088.7	1088.7	1088.7
17.5°	1151.3	1148.2	1144.1	1144.1	1141.0	1139.0	1140.0	1138.0
20°	1204.6	1200.5	1198.5	1197.5	1193.4	1193.4	1193.4	1192.3
22.5°	1257.0	1253.9	1250.8	1246.7	1242.6	1241.6	1241.6	1240.6
25°	1310.3	1305.2	1299.0	1294.9	1290.8	1287.8	1287.8	1287.8
27.5°	1363.7	1357.5	1348.3	1343.2	1337.0	1333.9	1333.9	1332.9
30°	1420.1	1412.9	1404.7	1397.6	1389.3	1386.3	1385.2	1383.2
32.5°	1487.9	1480.7	1472.5	1462.2	1454.0	1448.9	1448.9	1445.8
35°	1574.0	1565.8	1559.7	1546.3	1536.1	1527.9	1528.9	1530.9
37.5°	1686.9	1676.7	1671.5	1655.1	1641.8	1633.6	1633.6	1632.5
40°	1830.6	1820.3	1809.0	1793.6	1777.2	1765.9	1762.8	1762.8
42.5°	2013.2	2004.0	1988.6	1967.0	1947.5	1935.2	1925.0	1926.0
45°	2242.0	2230.8	2209.2	2182.5	2158.9	2141.5	2127.1	2127.1
47.5°	2520.1	2496.5	2466.8	2443.2	2403.1	2376.5	2366.2	2364.1
50°	2837.2	2793.1	2756.1	2722.3	2680.2	2652.5	2637.1	2633.0
52.5°	3169.6	3123.5	3077.3	3033.2	2981.9	2953.1	2928.5	2926.5
55°	3530.8	3472.3	3413.9	3370.8	3310.2	3280.5	3255.8	3241.5
57.5°	3899.2	3833.5	3791.5	3729.9	3666.3	3644.7	3621.1	3603.7
60°	4313.7	4241.9	4186.5	4121.9	4080.8	4034.6	4012.1	3998.7
62.5°	4737.5	4670.8	4600.0	4538.5	4481.0	4449.2	4418.4	4403.0
65°	5168.5	5058.7	4974.6	4889.4	4821.7	4764.2	4716.0	4709.8
67.5°	5433.2	5294.7	5154.1	5030.0	4930.4	4849.4	4800.1	4782.7
69°	5454.8	5303.9	5128.5	4979.7	4864.8	4786.8	4728.3	4709.8
70°	5395.3	5243.4	5058.7	4898.6	4779.6	4694.4	4646.2	4615.4
72.5°	4960.2	4826.8	4649.3	4491.3	4383.5	4284.0	4235.8	4223.4
75°	4092.1	3950.5	3787.4	3711.4	3636.5	3573.9	3541.1	3538.0
77.5°	2905.9	2761.2	2637.1	2537.6	2456.5	2416.5	2425.7	2391.9
80°	1663.3	1474.5	1324.7	1236.5	1116.4	1044.6	963.5	1022.0
82.5°	715.2	577.7	440.2	358.1	272.9	216.5	178.5	166.2
85°	200.1	163.2	136.5	125.2	112.9	100.6	85.2	79.0
87.5°	67.7	64.6	57.5	57.5	52.3	44.1	30.8	27.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)