

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: P143658

Luminaire Tested: **LDRL-5MQ-E05-E-8030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P143658  
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-8030  
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE  
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM  
Light Source: (105) 3000K CCT, 80 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13114.3 lumens  
Efficiency: N/A  
Efficacy: 103.0 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

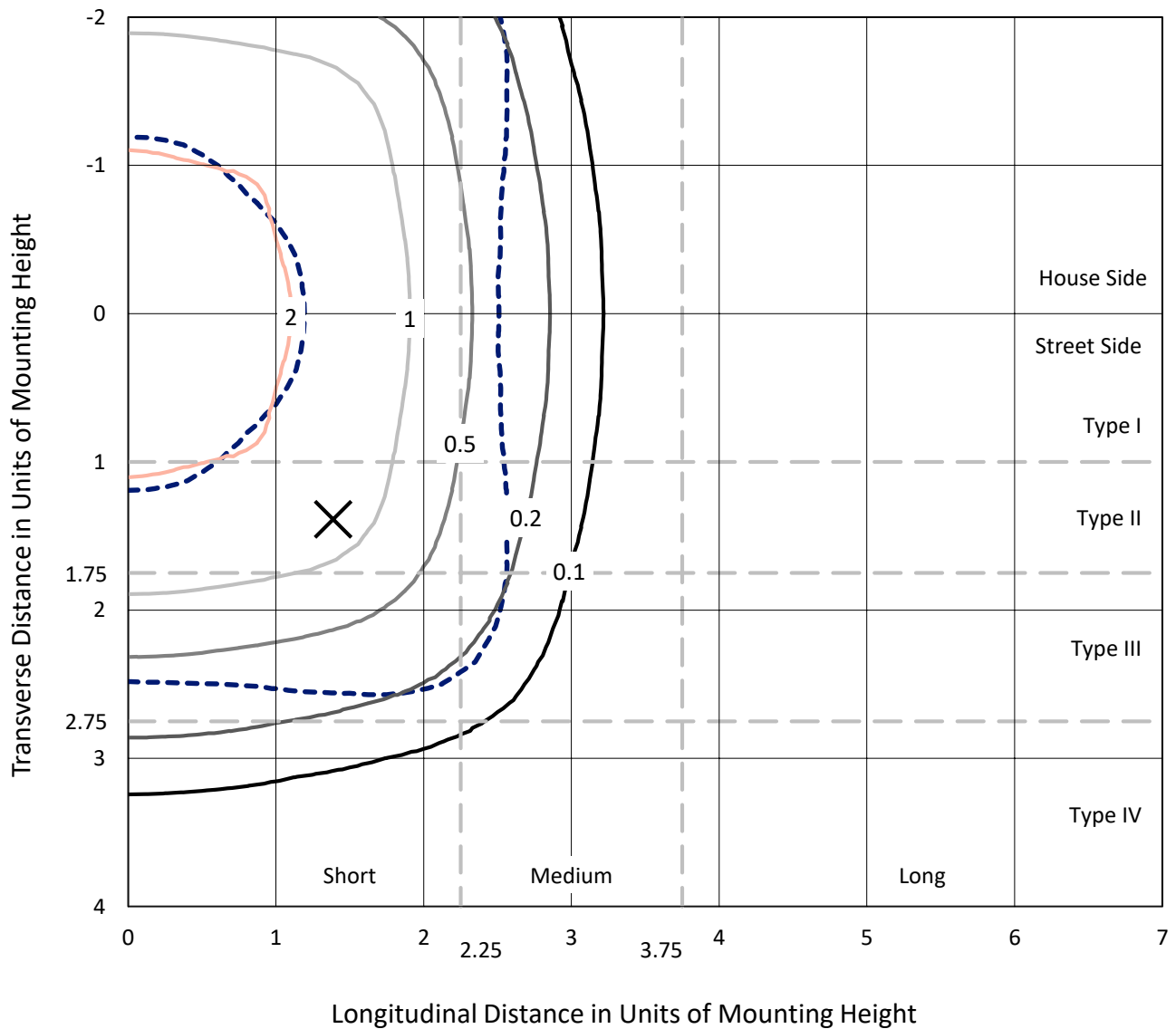
Input Watts (W): 127.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

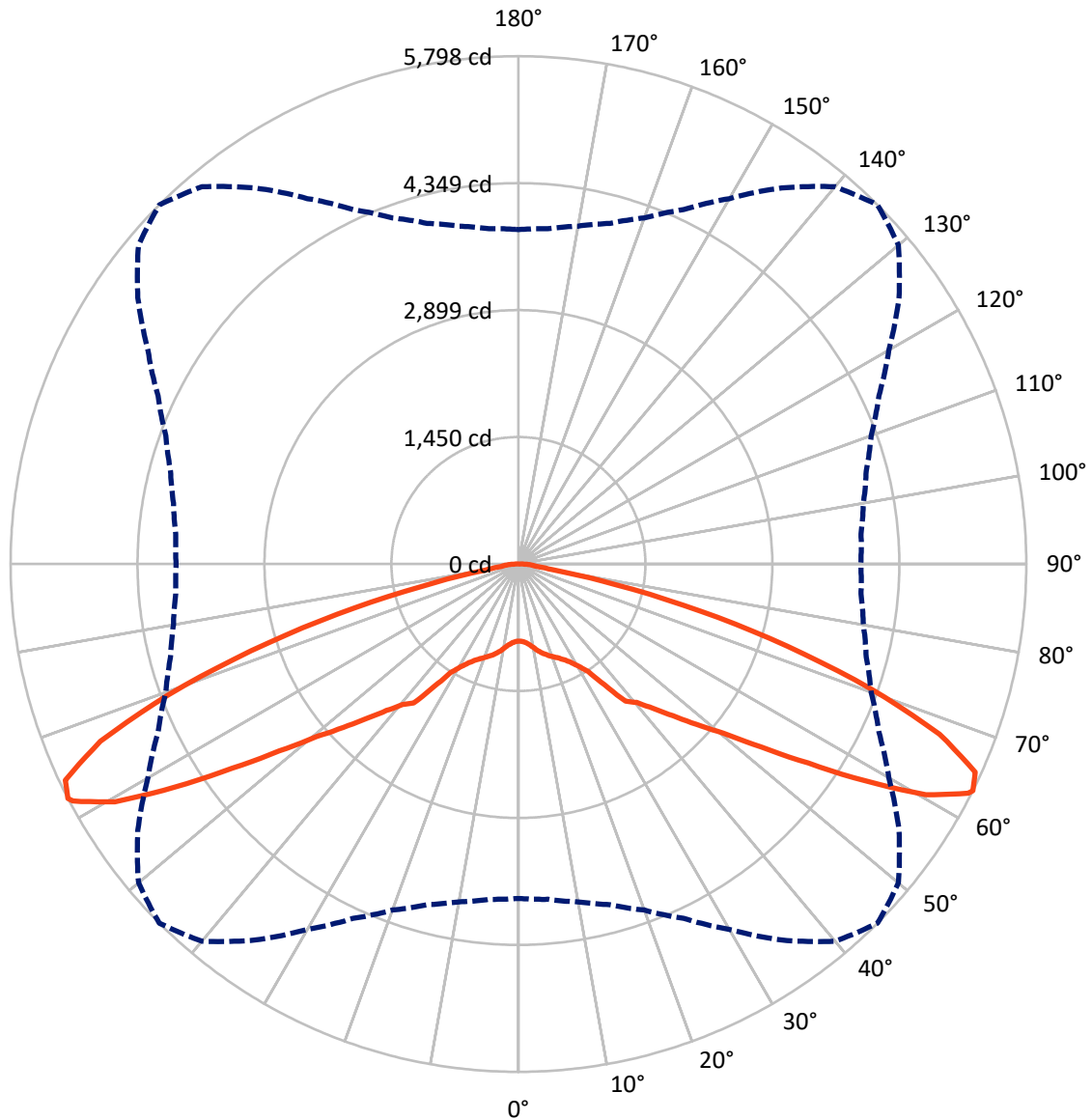
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 2.4 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	6557.1	0.0	6557.1
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	6557.1	0.0	6557.1
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	13114.3	0.0	13114.3
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	88.6	0.7
10°-20°	302.8	2.3
20°-30°	578.3	4.4
30°-40°	1101.7	8.4
40°-50°	1897.1	14.5
50°-60°	3390.0	25.8
60°-70°	4129.1	31.5
70°-80°	1470.8	11.2
80°-90°	156.0	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°	13114.3	100.0
0°-180°	13114.3	100.0



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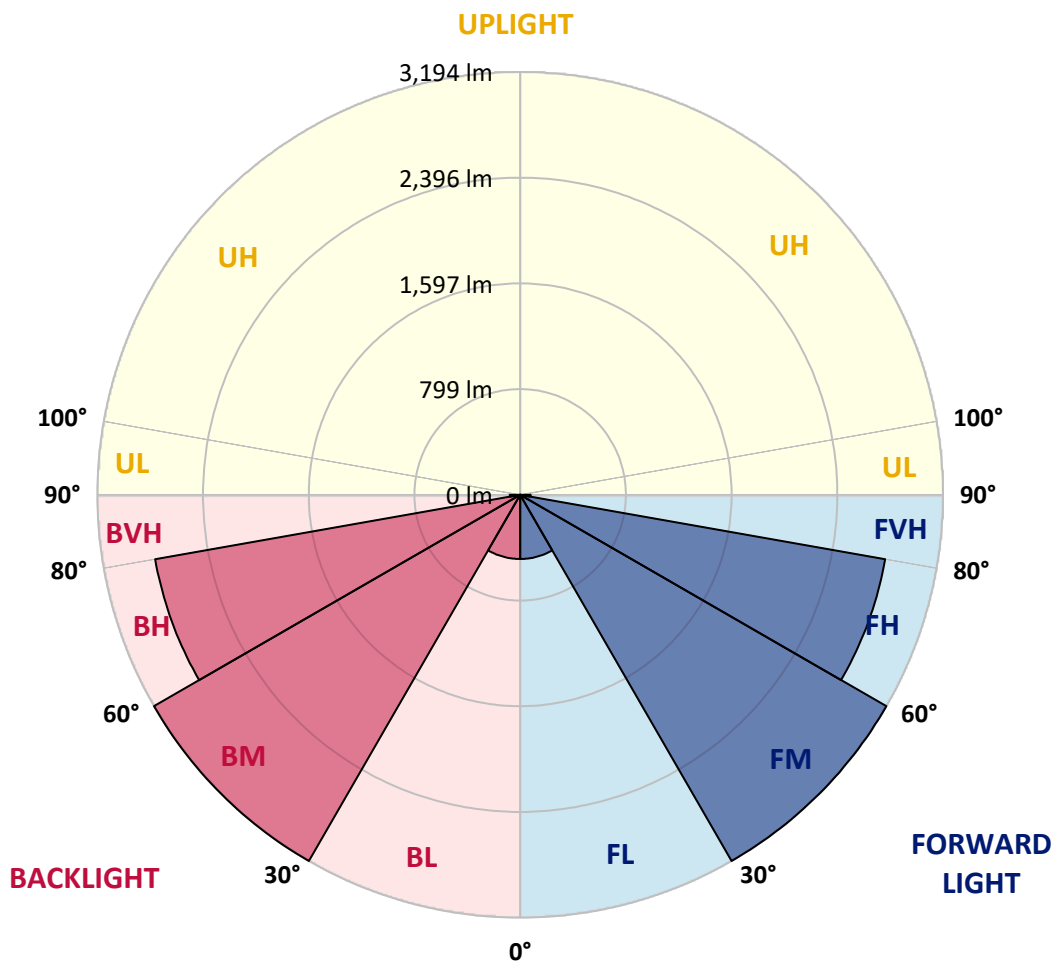
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	484.8	3.7			
FM	(30°-60°)	3194.4	24.4			
FH	(60°-80°)	2799.9	21.4			G2/5000
FVH	(80°-90°)	78.0	0.6			G1/100
BL	(0°-30°)	484.8	3.7	B1/500		
BM	(30°-60°)	3194.4	24.4	B3/5000		
BH	(60°-80°)	2799.9	21.4	B4/5000		G2/5000
BVH	(80°-90°)	78.0	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°	880.3	880.3	880.3	880.3	880.3	880.3	880.3	880.3	880.3	880.3	880.3
2.5°	887.0	886.2	887.0	885.3	885.3	884.5	884.5	884.5	882.8	884.5	882.8
5°	905.6	904.8	905.6	903.9	903.9	902.2	902.2	902.2	900.5	902.2	901.4
7.5°	937.7	939.4	937.7	936.0	936.0	934.3	933.5	933.5	932.6	931.8	933.5
10°	982.4	984.1	981.6	979.9	979.0	978.2	976.5	975.7	975.7	972.3	973.1
12.5°	1029.7	1029.7	1027.1	1026.3	1026.3	1024.6	1021.2	1020.4	1020.4	1018.7	1017.0
15°	1071.9	1071.9	1070.2	1066.8	1067.6	1065.1	1062.6	1060.9	1060.9	1059.2	1057.5
17.5°	1110.7	1110.7	1108.2	1104.8	1103.1	1102.3	1098.9	1097.2	1097.2	1095.5	1093.8
20°	1149.5	1151.2	1147.0	1143.6	1140.2	1136.9	1133.5	1131.8	1129.3	1130.1	1129.3
22.5°	1195.9	1196.8	1190.0	1185.8	1179.1	1174.8	1169.8	1168.1	1164.7	1164.7	1166.4
25°	1255.0	1254.2	1246.6	1239.0	1231.4	1222.9	1215.3	1213.7	1210.3	1209.4	1210.3
27.5°	1332.7	1331.8	1322.5	1312.4	1302.3	1289.6	1280.3	1275.3	1272.7	1269.4	1271.1
30°	1428.0	1429.7	1418.7	1406.9	1394.3	1379.1	1367.3	1360.5	1355.4	1352.1	1353.8
32.5°	1622.2	1620.5	1603.6	1578.3	1551.3	1515.8	1487.1	1475.3	1466.0	1462.6	1465.2
35°	1817.1	1815.4	1808.7	1801.1	1794.3	1771.5	1750.4	1726.0	1705.7	1693.0	1696.4
37.5°	1909.1	1909.1	1904.0	1902.4	1902.4	1915.9	1932.7	1963.1	1986.8	1988.4	1980.8
40°	2052.6	2052.6	2044.1	2039.9	2037.4	2041.6	2052.6	2063.6	2075.4	2077.9	2069.5
42.5°	2221.4	2213.8	2207.9	2199.4	2198.6	2202.8	2214.6	2228.1	2240.0	2250.1	2232.4
45°	2403.7	2396.9	2391.0	2386.0	2389.3	2400.3	2416.3	2440.0	2456.9	2472.0	2457.7
47.5°	2607.1	2592.7	2598.6	2593.6	2602.0	2624.0	2652.7	2688.1	2705.8	2732.8	2710.1
50°	2860.3	2863.7	2860.3	2860.3	2870.4	2899.1	2941.3	2989.4	3019.8	3035.0	3021.5
52.5°	3236.7	3226.6	3203.8	3210.5	3224.0	3269.6	3324.5	3392.0	3430.8	3467.1	3424.9
55°	3648.6	3650.3	3646.9	3656.2	3682.3	3728.8	3798.0	3900.1	3949.0	4012.3	3961.7
57.5°	3989.5	4001.4	4021.6	4049.5	4106.0	4183.7	4319.5	4475.7	4605.7	4674.0	4594.7
60°	4100.1	4111.9	4160.9	4238.5	4344.9	4503.5	4723.8	4991.4	5225.1	5346.7	5242.9
62.5°	3887.4	3909.4	3981.9	4089.1	4264.7	4512.8	4840.3	5236.1	5596.5	5762.8	5637.0
63°	3818.2	3842.7	3917.0	4025.8	4204.8	4463.9	4817.5	5241.2	5622.7	5798.2	5662.3
65°	3511.0	3527.0	3605.5	3729.6	3928.8	4198.9	4592.2	5093.5	5528.1	5731.5	5587.2
67.5°	3027.4	3048.5	3120.2	3227.4	3420.7	3706.8	4093.4	4593.0	5020.9	5183.8	5060.6
70°	2428.2	2451.8	2510.9	2610.5	2762.4	3027.4	3358.2	3825.0	4146.5	4274.0	4142.3
72.5°	1706.5	1716.7	1759.7	1864.4	1978.3	2189.3	2451.8	2814.7	3123.6	3207.2	3080.6
75°	722.5	723.3	779.8	846.5	989.2	1199.3	1428.0	1740.3	2018.0	2148.0	1987.6
77.5°	231.3	233.8	249.8	274.3	321.6	415.2	584.0	755.4	1010.3	1133.5	983.2
80°	193.3	196.6	203.4	208.5	211.8	216.9	236.3	263.3	331.7	385.7	311.4
82.5°	166.3	172.2	187.4	193.3	196.6	198.3	200.9	200.0	195.8	194.1	195.0
85°	126.6	140.9	157.8	171.3	173.0	173.9	178.9	180.6	167.1	153.6	167.1
87.5°	54.9	70.9	108.9	120.7	118.2	109.7	117.3	124.1	113.1	82.7	110.6
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°	880.3	880.3	880.3	880.3	880.3	880.3	880.3	880.3
2.5°	883.7	885.3	885.3	885.3	885.3	886.2	887.0	886.2
5°	902.2	903.9	903.1	903.9	903.9	904.8	905.6	904.8
7.5°	934.3	934.3	934.3	936.0	936.0	937.7	937.7	937.7
10°	974.0	973.1	973.1	974.8	976.5	977.3	979.0	978.2
12.5°	1017.0	1015.3	1016.2	1017.9	1019.5	1020.4	1022.1	1021.2
15°	1055.8	1055.0	1055.0	1057.5	1058.4	1059.2	1062.6	1062.6
17.5°	1093.0	1093.0	1093.0	1096.3	1097.2	1100.6	1103.1	1103.1
20°	1130.1	1130.1	1130.1	1133.5	1136.0	1141.1	1146.1	1145.3
22.5°	1168.1	1168.9	1170.6	1174.0	1179.9	1187.5	1191.7	1191.7
25°	1215.3	1218.7	1222.1	1227.2	1235.6	1245.7	1252.5	1255.0
27.5°	1276.1	1283.7	1292.2	1299.7	1309.0	1321.7	1331.0	1332.7
30°	1358.8	1369.8	1383.3	1393.4	1405.2	1419.6	1430.6	1436.5
32.5°	1476.1	1503.1	1520.9	1557.2	1579.1	1603.6	1623.8	1632.3
35°	1717.5	1744.5	1768.2	1792.6	1797.7	1806.1	1817.1	1819.6
37.5°	1956.4	1934.4	1913.3	1912.5	1906.6	1908.3	1911.6	1915.9
40°	2060.2	2053.4	2042.5	2046.7	2047.5	2047.5	2054.3	2055.1
42.5°	2227.3	2211.3	2198.6	2208.7	2210.4	2212.1	2218.9	2226.4
45°	2440.0	2415.5	2399.5	2393.6	2399.5	2397.8	2407.1	2408.8
47.5°	2683.0	2651.0	2614.7	2602.9	2599.5	2591.9	2607.9	2606.2
50°	2981.0	2929.5	2885.6	2868.7	2860.3	2856.1	2860.3	2860.3
52.5°	3358.2	3306.8	3246.8	3227.4	3220.7	3230.0	3216.4	3230.8
55°	3877.3	3793.7	3711.9	3685.7	3681.5	3677.3	3679.0	3684.9
57.5°	4461.3	4312.8	4203.1	4138.9	4097.6	4077.3	4055.4	4052.0
60°	5025.1	4755.0	4546.6	4404.8	4304.4	4228.4	4189.6	4176.1
62.5°	5296.9	4901.9	4577.8	4336.4	4187.0	4063.0	3994.6	3976.9
63°	5304.5	4883.3	4539.8	4284.9	4111.1	3999.7	3927.1	3908.5
65°	5163.5	4684.1	4281.6	4001.4	3817.4	3700.9	3611.4	3592.0
67.5°	4650.4	4185.4	3773.5	3489.1	3289.9	3196.2	3097.4	3094.9
70°	3816.5	3401.3	3054.4	2792.8	2626.5	2533.7	2433.2	2435.8
72.5°	2790.2	2421.4	2182.6	1978.3	1802.8	1715.0	1620.5	1629.7
75°	1679.5	1350.4	1135.2	957.9	777.3	669.3	596.7	555.3
77.5°	718.2	491.2	352.8	280.2	236.3	218.6	210.2	207.6
80°	249.8	221.1	208.5	205.1	202.6	199.2	193.3	187.4
82.5°	202.6	202.6	195.8	195.0	187.4	181.5	166.3	158.7
85°	179.8	176.4	170.5	168.0	166.3	153.6	134.2	124.1
87.5°	119.0	110.6	105.5	108.0	104.7	93.7	57.4	45.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)