

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: P143651

Luminaire Tested: **LDRL-5MQ-E04-E-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P143651
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-E04-E-7050
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM
Light Source: (84) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12755.2 lumens
Efficiency: N/A
Efficacy: 131.2 lumens/watt
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B4 - U0 - G2

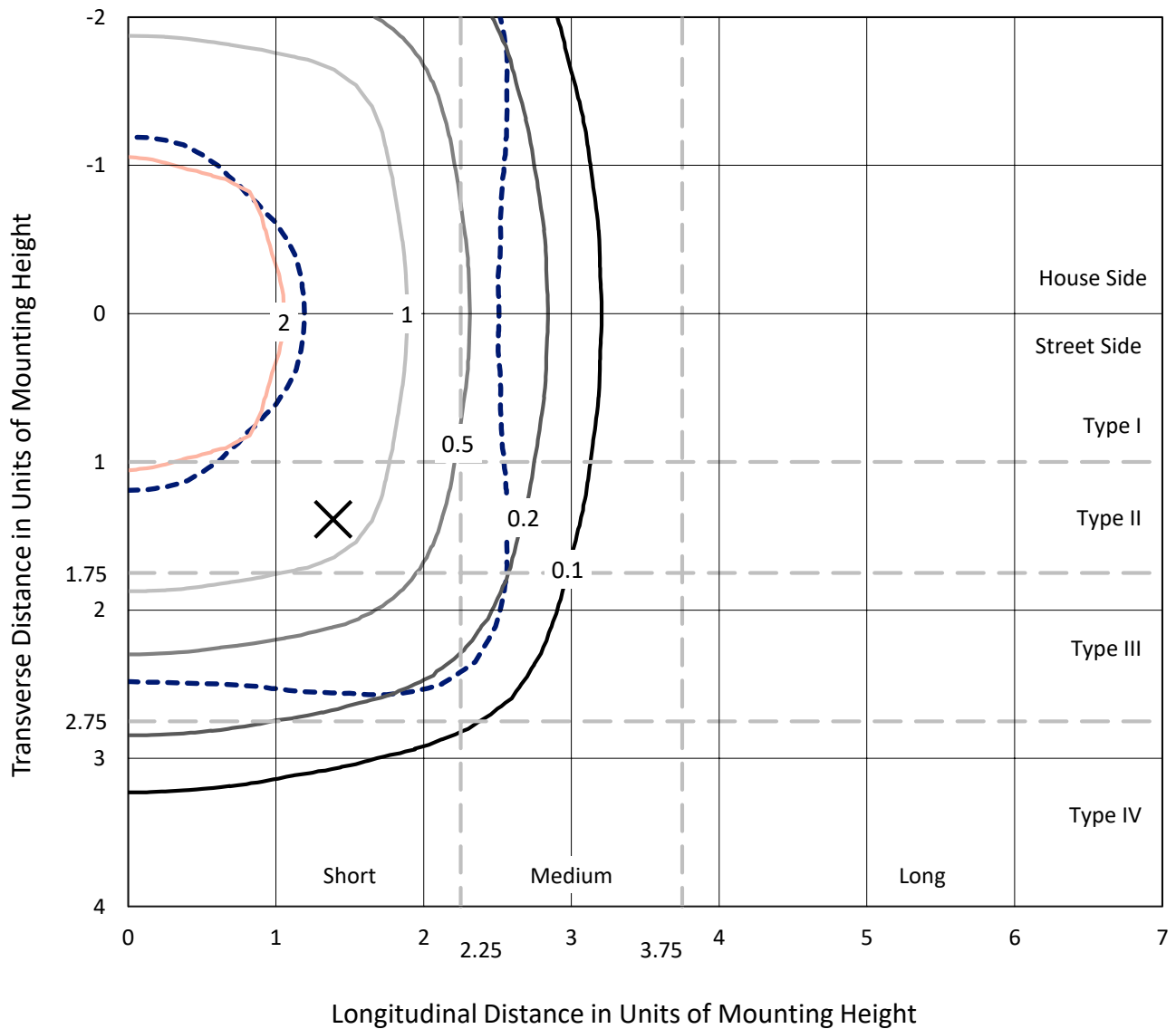
Input Watts (W): 97.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

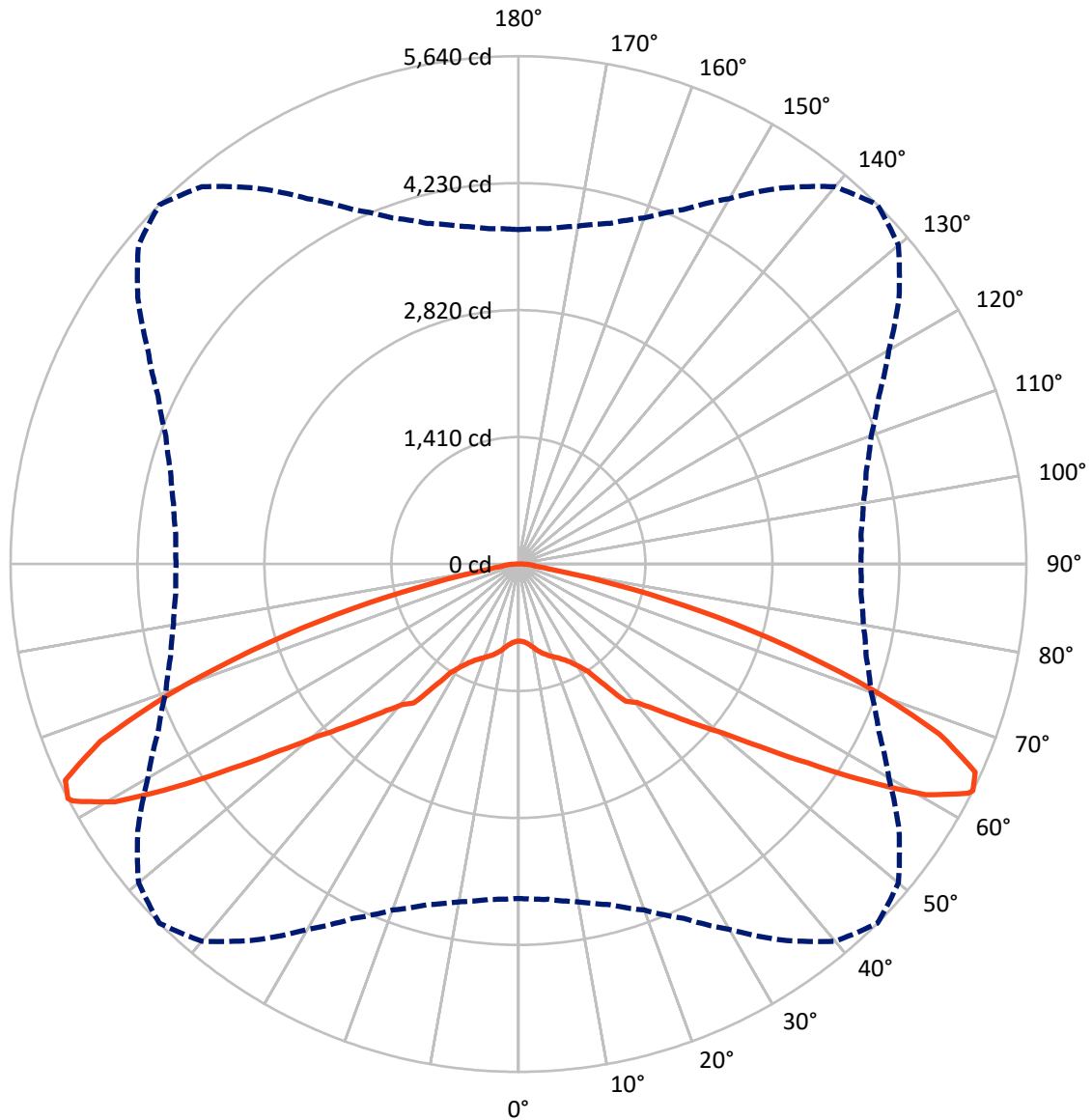
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 2.4 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
House Side	Lumens	6377.6	0.0	6377.6
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	6377.6	0.0	6377.6
	% Fixture	50.0	0.0	50.0
Total	Lumens	12755.2	0.0	12755.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.2	0.7
10°-20°	294.5	2.3
20°-30°	562.5	4.4
30°-40°	1071.5	8.4
40°-50°	1845.1	14.5
50°-60°	3297.2	25.8
60°-70°	4016.0	31.5
70°-80°	1430.5	11.2
80°-90°	151.7	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°	12755.2	100.0
0°-180°	12755.2	100.0



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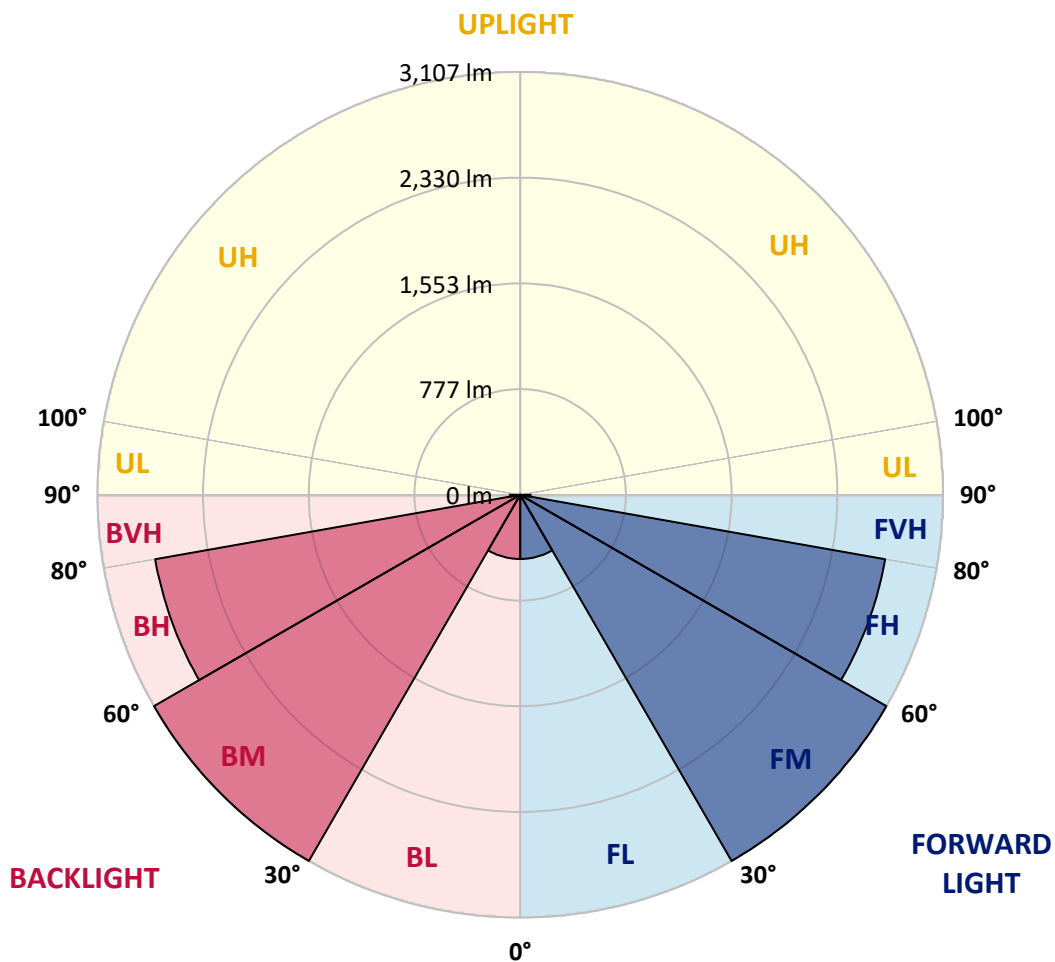
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	471.6	3.7			
FM	(30°-60°)	3106.9	24.4			
FH	(60°-80°)	2723.3	21.4			G2/5000
FVH	(80°-90°)	75.8	0.6			G1/100
BL	(0°-30°)	471.6	3.7	B1/500		
BM	(30°-60°)	3106.9	24.4	B3/5000		
BH	(60°-80°)	2723.3	21.4	B4/5000		G2/5000
BVH	(80°-90°)	75.8	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°	856.2	856.2	856.2	856.2	856.2	856.2	856.2	856.2	856.2	856.2	856.2
2.5°	862.7	861.9	862.7	861.1	861.1	860.3	860.3	860.3	858.6	860.3	858.6
5°	880.8	880.0	880.8	879.2	879.2	877.5	877.5	877.5	875.9	877.5	876.7
7.5°	912.0	913.6	912.0	910.4	910.4	908.7	907.9	907.9	907.1	906.3	907.9
10°	955.5	957.2	954.7	953.0	952.2	951.4	949.8	948.9	948.9	945.7	946.5
12.5°	1001.5	1001.5	999.0	998.2	998.2	996.6	993.3	992.4	992.4	990.8	989.2
15°	1042.5	1042.5	1040.9	1037.6	1038.4	1036.0	1033.5	1031.9	1031.9	1030.2	1028.6
17.5°	1080.3	1080.3	1077.8	1074.5	1072.9	1072.1	1068.8	1067.1	1067.1	1065.5	1063.9
20°	1118.0	1119.7	1115.6	1112.3	1109.0	1105.7	1102.4	1100.8	1098.3	1099.2	1098.3
22.5°	1163.2	1164.0	1157.4	1153.3	1146.8	1142.7	1137.7	1136.1	1132.8	1132.8	1134.5
25°	1220.7	1219.8	1212.4	1205.1	1197.7	1189.5	1182.1	1180.4	1177.1	1176.3	1177.1
27.5°	1296.2	1295.4	1286.3	1276.5	1266.6	1254.3	1245.3	1240.4	1237.9	1234.6	1236.3
30°	1388.9	1390.6	1379.9	1368.4	1356.1	1341.3	1329.8	1323.3	1318.3	1315.1	1316.7
32.5°	1577.7	1576.1	1559.7	1535.1	1508.8	1474.3	1446.4	1434.9	1425.9	1422.6	1425.1
35°	1767.4	1765.7	1759.2	1751.8	1745.2	1723.0	1702.5	1678.7	1659.0	1646.7	1650.0
37.5°	1856.8	1856.8	1851.9	1850.3	1850.3	1863.4	1879.8	1909.4	1932.4	1934.0	1926.6
40°	1996.4	1996.4	1988.2	1984.1	1981.6	1985.7	1996.4	2007.1	2018.6	2021.0	2012.8
42.5°	2160.6	2153.2	2147.4	2139.2	2138.4	2142.5	2154.0	2167.1	2178.6	2188.5	2171.2
45°	2337.9	2331.3	2325.6	2320.6	2323.9	2334.6	2350.2	2373.2	2389.6	2404.4	2390.4
47.5°	2535.7	2521.8	2527.5	2522.6	2530.8	2552.1	2580.0	2614.5	2631.8	2658.0	2635.9
50°	2782.0	2785.3	2782.0	2782.0	2791.8	2819.7	2860.8	2907.6	2937.1	2951.9	2938.8
52.5°	3148.1	3138.2	3116.1	3122.6	3135.8	3180.1	3233.5	3299.1	3336.9	3372.2	3331.1
55°	3548.7	3550.3	3547.0	3556.1	3581.5	3626.7	3694.0	3793.3	3840.9	3902.5	3853.2
57.5°	3880.3	3891.8	3911.5	3938.6	3993.6	4069.1	4201.3	4353.1	4479.6	4546.1	4468.9
60°	3987.9	3999.3	4047.0	4122.5	4225.9	4380.2	4594.5	4854.7	5082.1	5200.3	5099.3
62.5°	3781.0	3802.3	3872.9	3977.2	4147.9	4389.3	4707.8	5092.8	5443.3	5605.0	5482.7
63°	3713.7	3737.5	3809.7	3915.6	4089.6	4341.7	4685.6	5097.7	5468.7	5639.5	5507.3
65°	3414.9	3430.5	3506.8	3627.5	3821.2	4083.9	4466.4	4954.0	5376.8	5574.6	5434.3
67.5°	2944.5	2965.0	3034.8	3139.1	3327.0	3605.3	3981.3	4467.3	4883.4	5041.9	4922.0
70°	2361.7	2384.7	2442.1	2539.0	2686.8	2944.5	3266.3	3720.2	4033.0	4157.0	4028.9
72.5°	1659.8	1669.7	1711.5	1813.3	1924.2	2129.4	2384.7	2737.6	3038.1	3119.4	2996.2
75°	702.7	703.5	758.5	823.3	962.1	1166.5	1388.9	1692.7	1962.7	2089.2	1933.2
77.5°	224.9	227.4	243.0	266.8	312.8	403.9	568.1	734.7	982.6	1102.4	956.3
80°	188.0	191.3	197.8	202.8	206.0	211.0	229.8	256.1	322.6	375.1	302.9
82.5°	161.7	167.5	182.2	188.0	191.3	192.9	195.4	194.5	190.4	188.8	189.6
85°	123.1	137.1	153.5	166.6	168.3	169.1	174.0	175.7	162.5	149.4	162.5
87.5°	53.4	69.0	105.9	117.4	114.9	106.7	114.1	120.7	110.0	80.4	107.5
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°	856.2	856.2	856.2	856.2	856.2	856.2	856.2	856.2
2.5°	859.5	861.1	861.1	861.1	861.1	861.9	862.7	861.9
5°	877.5	879.2	878.3	879.2	879.2	880.0	880.8	880.0
7.5°	908.7	908.7	908.7	910.4	910.4	912.0	912.0	912.0
10°	947.3	946.5	946.5	948.1	949.8	950.6	952.2	951.4
12.5°	989.2	987.5	988.3	990.0	991.6	992.4	994.1	993.3
15°	1026.9	1026.1	1026.1	1028.6	1029.4	1030.2	1033.5	1033.5
17.5°	1063.0	1063.0	1063.0	1066.3	1067.1	1070.4	1072.9	1072.9
20°	1099.2	1099.2	1099.2	1102.4	1104.9	1109.8	1114.8	1113.9
22.5°	1136.1	1136.9	1138.6	1141.9	1147.6	1155.0	1159.1	1159.1
25°	1182.1	1185.4	1188.6	1193.6	1201.8	1211.6	1218.2	1220.7
27.5°	1241.2	1248.6	1256.8	1264.2	1273.2	1285.5	1294.5	1296.2
30°	1321.6	1332.3	1345.4	1355.3	1366.8	1380.7	1391.4	1397.1
32.5°	1435.7	1462.0	1479.2	1514.5	1535.9	1559.7	1579.4	1587.6
35°	1670.5	1696.8	1719.8	1743.6	1748.5	1756.7	1767.4	1769.8
37.5°	1902.8	1881.5	1860.9	1860.1	1854.4	1856.0	1859.3	1863.4
40°	2003.8	1997.2	1986.5	1990.6	1991.5	1991.5	1998.0	1998.9
42.5°	2166.3	2150.7	2138.4	2148.3	2149.9	2151.5	2158.1	2165.5
45°	2373.2	2349.4	2333.8	2328.0	2333.8	2332.1	2341.2	2342.8
47.5°	2609.6	2578.4	2543.1	2531.6	2528.3	2520.9	2536.5	2534.9
50°	2899.4	2849.3	2806.6	2790.2	2782.0	2777.9	2782.0	2782.0
52.5°	3266.3	3216.2	3157.9	3139.1	3132.5	3141.5	3128.4	3142.3
55°	3771.1	3689.9	3610.2	3584.8	3580.7	3576.6	3578.2	3584.0
57.5°	4339.2	4194.7	4088.0	4025.6	3985.4	3965.7	3944.3	3941.1
60°	4887.5	4624.9	4422.1	4284.2	4186.5	4112.6	4074.9	4061.7
62.5°	5151.9	4767.7	4452.5	4217.7	4072.4	3951.7	3885.2	3868.0
63°	5159.3	4749.6	4415.5	4167.6	3998.5	3890.2	3819.6	3801.5
65°	5022.2	4555.9	4164.3	3891.8	3712.9	3599.6	3512.6	3493.7
67.5°	4523.1	4070.8	3670.2	3393.5	3199.8	3108.7	3012.6	3010.2
70°	3712.0	3308.2	2970.8	2716.3	2554.6	2464.3	2366.6	2369.1
72.5°	2713.8	2355.1	2122.8	1924.2	1753.4	1668.0	1576.1	1585.1
75°	1633.6	1313.4	1104.1	931.7	756.0	651.0	580.4	540.1
77.5°	698.6	477.8	343.1	272.5	229.8	212.6	204.4	201.9
80°	243.0	215.1	202.8	199.5	197.0	193.7	188.0	182.2
82.5°	197.0	197.0	190.4	189.6	182.2	176.5	161.7	154.3
85°	174.8	171.6	165.8	163.4	161.7	149.4	130.5	120.7
87.5°	115.7	107.5	102.6	105.1	101.8	91.1	55.8	44.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)