

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: P143664

Luminaire Tested: **LDRL-5MQ-F05-E-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P143664
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-F05-E-7030
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM
Light Source: (35) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11715.8 lumens
Efficiency: N/A
Efficacy: 87.9 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

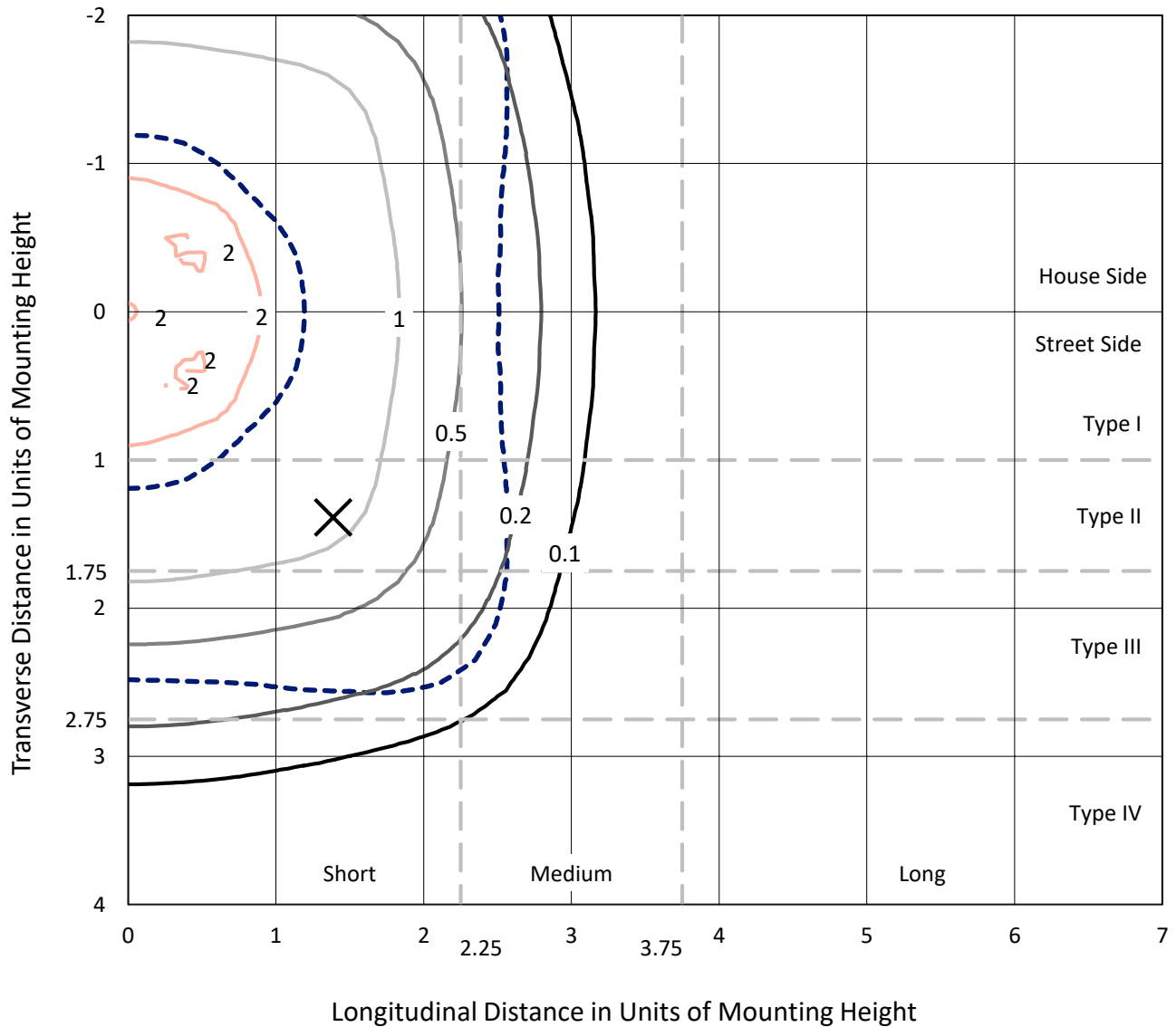
Input Watts (W): 133.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

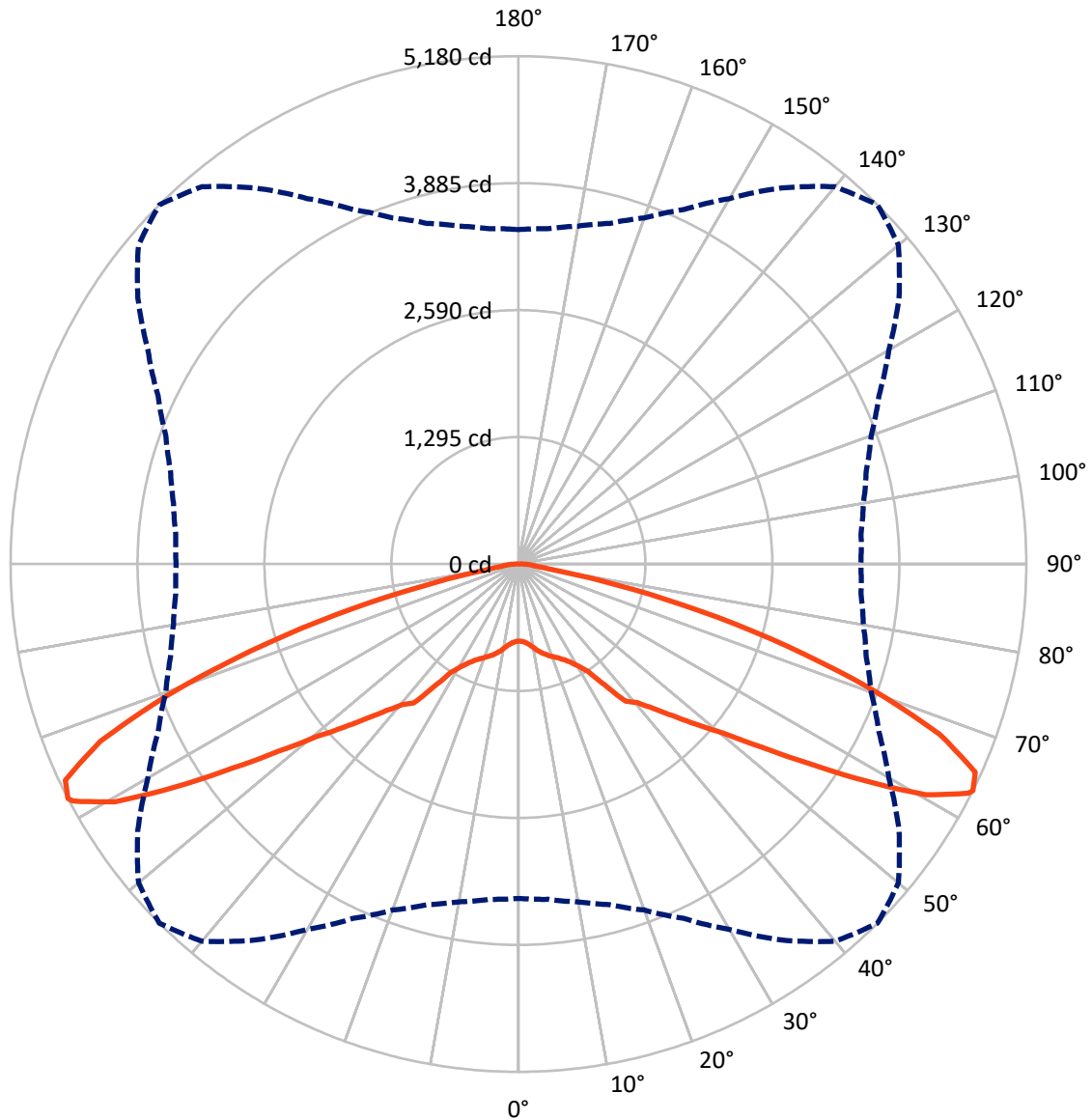
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 2.2 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	5857.9	0.0	5857.9
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	5857.9	0.0	5857.9
	% Fixture	50.0	0.0	50.0
Total	Lumens	11715.8	0.0	11715.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.2	0.7
10°-20°	270.5	2.3
20°-30°	516.6	4.4
30°-40°	984.2	8.4
40°-50°	1694.8	14.5
50°-60°	3028.5	25.8
60°-70°	3688.8	31.5
70°-80°	1314.0	11.2
80°-90°	139.3	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°	11715.8	100.0
0°-180°	11715.8	100.0



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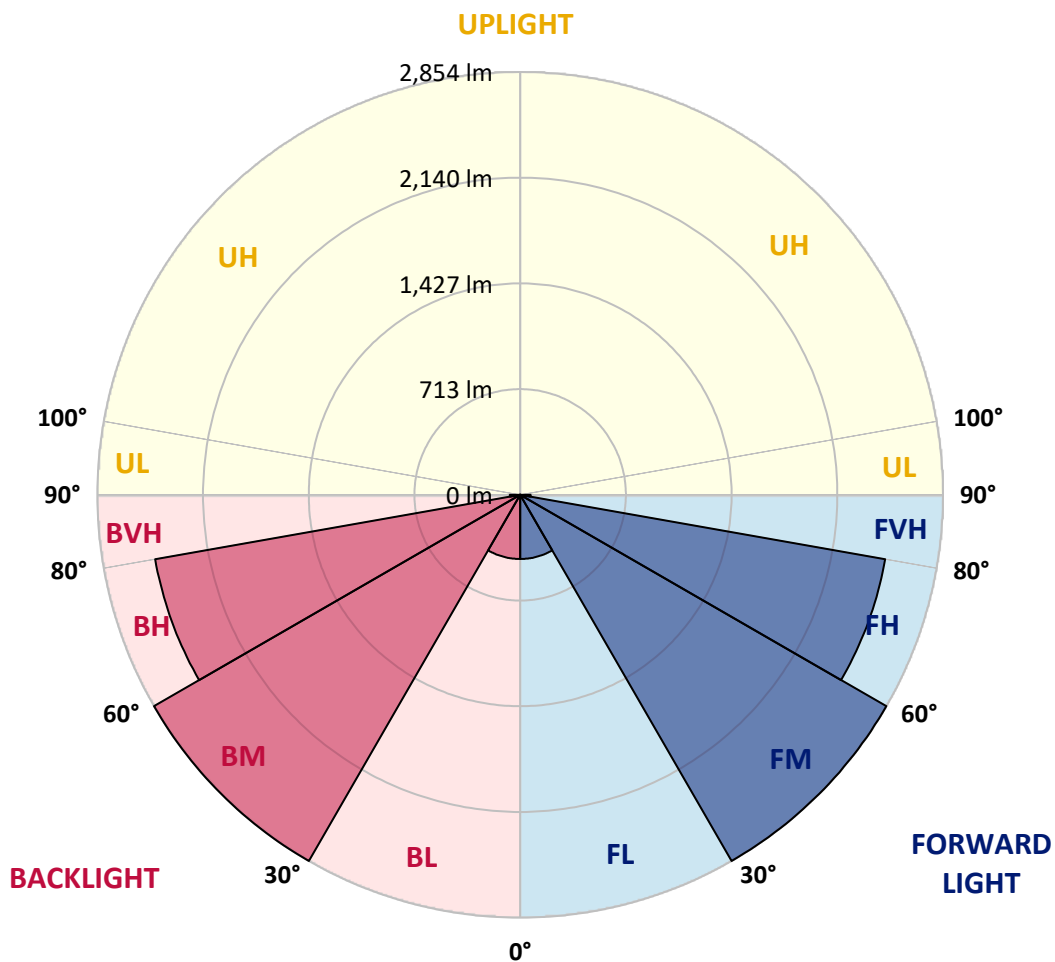
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	433.1	3.7			
FM	(30°-60°)	2853.7	24.4			
FH	(60°-80°)	2501.4	21.4			G2/5000
FVH	(80°-90°)	69.7	0.6			G1/100
BL	(0°-30°)	433.1	3.7	B1/500		
BM	(30°-60°)	2853.7	24.4	B3/5000		
BH	(60°-80°)	2501.4	21.4	B4/5000		G2/5000
BVH	(80°-90°)	69.7	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°	786.4	786.4	786.4	786.4	786.4	786.4	786.4	786.4	786.4	786.4	786.4
2.5°	792.4	791.7	792.4	790.9	790.9	790.2	790.2	790.2	788.7	790.2	788.7
5°	809.0	808.3	809.0	807.5	807.5	806.0	806.0	806.0	804.5	806.0	805.3
7.5°	837.7	839.2	837.7	836.2	836.2	834.7	833.9	833.9	833.2	832.4	833.9
10°	877.6	879.2	876.9	875.4	874.6	873.9	872.4	871.6	871.6	868.6	869.4
12.5°	919.9	919.9	917.6	916.9	916.9	915.3	912.3	911.6	911.6	910.1	908.6
15°	957.6	957.6	956.1	953.0	953.8	951.5	949.3	947.8	947.8	946.3	944.8
17.5°	992.3	992.3	990.0	987.0	985.5	984.7	981.7	980.2	980.2	978.7	977.2
20°	1026.9	1028.4	1024.7	1021.7	1018.6	1015.6	1012.6	1011.1	1008.8	1009.6	1008.8
22.5°	1068.4	1069.2	1063.1	1059.4	1053.3	1049.6	1045.0	1043.5	1040.5	1040.5	1042.0
25°	1121.2	1120.4	1113.6	1106.9	1100.1	1092.5	1085.8	1084.2	1081.2	1080.5	1081.2
27.5°	1190.6	1189.8	1181.5	1172.5	1163.4	1152.1	1143.8	1139.3	1137.0	1134.0	1135.5
30°	1275.8	1277.3	1267.5	1256.9	1245.6	1232.0	1221.5	1215.4	1210.9	1207.9	1209.4
32.5°	1449.2	1447.7	1432.6	1410.0	1385.8	1354.2	1328.5	1318.0	1309.7	1306.7	1308.9
35°	1623.3	1621.8	1615.8	1609.0	1603.0	1582.6	1563.8	1541.9	1523.8	1512.5	1515.5
37.5°	1705.5	1705.5	1701.0	1699.5	1699.5	1711.6	1726.6	1753.8	1774.9	1776.4	1769.6
40°	1833.7	1833.7	1826.2	1822.4	1820.1	1823.9	1833.7	1843.5	1854.1	1856.3	1848.8
42.5°	1984.5	1977.7	1972.4	1964.9	1964.2	1967.9	1978.5	1990.5	2001.1	2010.1	1994.3
45°	2147.4	2141.3	2136.1	2131.5	2134.6	2144.4	2158.7	2179.8	2194.9	2208.4	2195.6
47.5°	2329.1	2316.3	2321.5	2317.0	2324.6	2344.2	2369.8	2401.5	2417.3	2441.4	2421.1
50°	2555.3	2558.3	2555.3	2555.3	2564.3	2590.0	2627.7	2670.6	2697.8	2711.4	2699.3
52.5°	2891.6	2882.5	2862.2	2868.2	2880.3	2921.0	2970.0	3030.3	3065.0	3097.4	3059.7
55°	3259.5	3261.0	3258.0	3266.3	3289.7	3331.1	3393.0	3484.2	3527.9	3584.5	3539.2
57.5°	3564.1	3574.7	3592.8	3617.7	3668.2	3737.5	3858.9	3998.4	4114.5	4175.6	4104.7
60°	3662.9	3673.5	3717.2	3786.6	3881.6	4023.3	4220.1	4459.1	4668.0	4776.5	4683.8
62.5°	3472.9	3492.5	3557.3	3653.1	3809.9	4031.6	4324.2	4677.8	4999.7	5148.3	5035.9
63°	3411.1	3432.9	3499.3	3596.5	3756.4	3987.9	4303.8	4682.3	5023.1	5179.9	5058.5
65°	3136.6	3150.9	3221.1	3331.9	3509.8	3751.1	4102.5	4550.4	4938.7	5120.4	4991.4
67.5°	2704.6	2723.4	2787.5	2883.3	3055.9	3311.5	3656.9	4103.2	4485.5	4631.0	4520.9
70°	2169.2	2190.4	2243.1	2332.1	2467.8	2704.6	3000.1	3417.1	3704.4	3818.2	3700.6
72.5°	1524.6	1533.6	1572.1	1665.6	1767.4	1955.9	2190.4	2514.6	2790.5	2865.2	2752.1
75°	645.4	646.2	696.7	756.3	883.7	1071.4	1275.8	1554.7	1802.8	1918.9	1775.7
77.5°	206.6	208.9	223.2	245.0	287.3	371.0	521.8	674.8	902.5	1012.6	878.4
80°	172.7	175.7	181.7	186.2	189.3	193.8	211.1	235.2	296.3	344.6	278.2
82.5°	148.5	153.8	167.4	172.7	175.7	177.2	179.5	178.7	174.9	173.4	174.2
85°	113.1	125.9	141.0	153.1	154.6	155.3	159.8	161.4	149.3	137.2	149.3
87.5°	49.0	63.3	97.3	107.8	105.6	98.0	104.8	110.8	101.0	73.9	98.8
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°	786.4	786.4	786.4	786.4	786.4	786.4	786.4	786.4
2.5°	789.4	790.9	790.9	790.9	790.9	791.7	792.4	791.7
5°	806.0	807.5	806.8	807.5	807.5	808.3	809.0	808.3
7.5°	834.7	834.7	834.7	836.2	836.2	837.7	837.7	837.7
10°	870.1	869.4	869.4	870.9	872.4	873.1	874.6	873.9
12.5°	908.6	907.1	907.8	909.3	910.8	911.6	913.1	912.3
15°	943.2	942.5	942.5	944.8	945.5	946.3	949.3	949.3
17.5°	976.4	976.4	976.4	979.4	980.2	983.2	985.5	985.5
20°	1009.6	1009.6	1009.6	1012.6	1014.9	1019.4	1023.9	1023.2
22.5°	1043.5	1044.3	1045.8	1048.8	1054.1	1060.9	1064.6	1064.6
25°	1085.8	1088.8	1091.8	1096.3	1103.8	1112.9	1118.9	1121.2
27.5°	1140.0	1146.8	1154.4	1161.1	1169.4	1180.8	1189.0	1190.6
30°	1213.9	1223.7	1235.8	1244.8	1255.4	1268.2	1278.0	1283.3
32.5°	1318.7	1342.9	1358.7	1391.1	1410.7	1432.6	1450.7	1458.2
35°	1534.4	1558.5	1579.6	1601.5	1606.0	1613.5	1623.3	1625.6
37.5°	1747.8	1728.2	1709.3	1708.5	1703.3	1704.8	1707.8	1711.6
40°	1840.5	1834.5	1824.7	1828.4	1829.2	1829.2	1835.2	1836.0
42.5°	1989.8	1975.5	1964.2	1973.2	1974.7	1976.2	1982.2	1989.0
45°	2179.8	2157.9	2143.6	2138.3	2143.6	2142.1	2150.4	2151.9
47.5°	2396.9	2368.3	2335.9	2325.3	2322.3	2315.5	2329.8	2328.3
50°	2663.1	2617.1	2577.9	2562.8	2555.3	2551.5	2555.3	2555.3
52.5°	3000.1	2954.1	2900.6	2883.3	2877.2	2885.5	2873.5	2886.3
55°	3463.8	3389.2	3316.1	3292.7	3288.9	3285.1	3286.7	3291.9
57.5°	3985.6	3852.9	3754.9	3697.6	3660.6	3642.5	3622.9	3619.9
60°	4489.3	4248.0	4061.8	3935.1	3845.4	3777.5	3742.8	3730.8
62.5°	4732.1	4379.2	4089.7	3874.0	3740.6	3629.7	3568.7	3552.8
63°	4738.8	4362.6	4055.7	3828.0	3672.7	3573.2	3508.3	3491.7
65°	4612.9	4184.7	3825.0	3574.7	3410.3	3306.3	3226.3	3209.0
67.5°	4154.5	3739.1	3371.1	3117.0	2939.1	2855.4	2767.2	2764.9
70°	3409.6	3038.6	2728.7	2495.0	2346.4	2263.5	2173.8	2176.0
72.5°	2492.7	2163.2	1949.8	1767.4	1610.5	1532.1	1447.7	1456.0
75°	1500.4	1206.4	1014.1	855.8	694.4	597.9	533.1	496.1
77.5°	641.6	438.8	315.2	250.3	211.1	195.3	187.7	185.5
80°	223.2	197.5	186.2	183.2	181.0	177.9	172.7	167.4
82.5°	181.0	181.0	174.9	174.2	167.4	162.1	148.5	141.8
85°	160.6	157.6	152.3	150.0	148.5	137.2	119.9	110.8
87.5°	106.3	98.8	94.2	96.5	93.5	83.7	51.3	40.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)