

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: P143666

Luminaire Tested: **LDRL-5MQ-F05-E-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P143666
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-7050
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM
Light Source: (35) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13162.2 lumens
Efficiency: N/A
Efficacy: 98.7 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

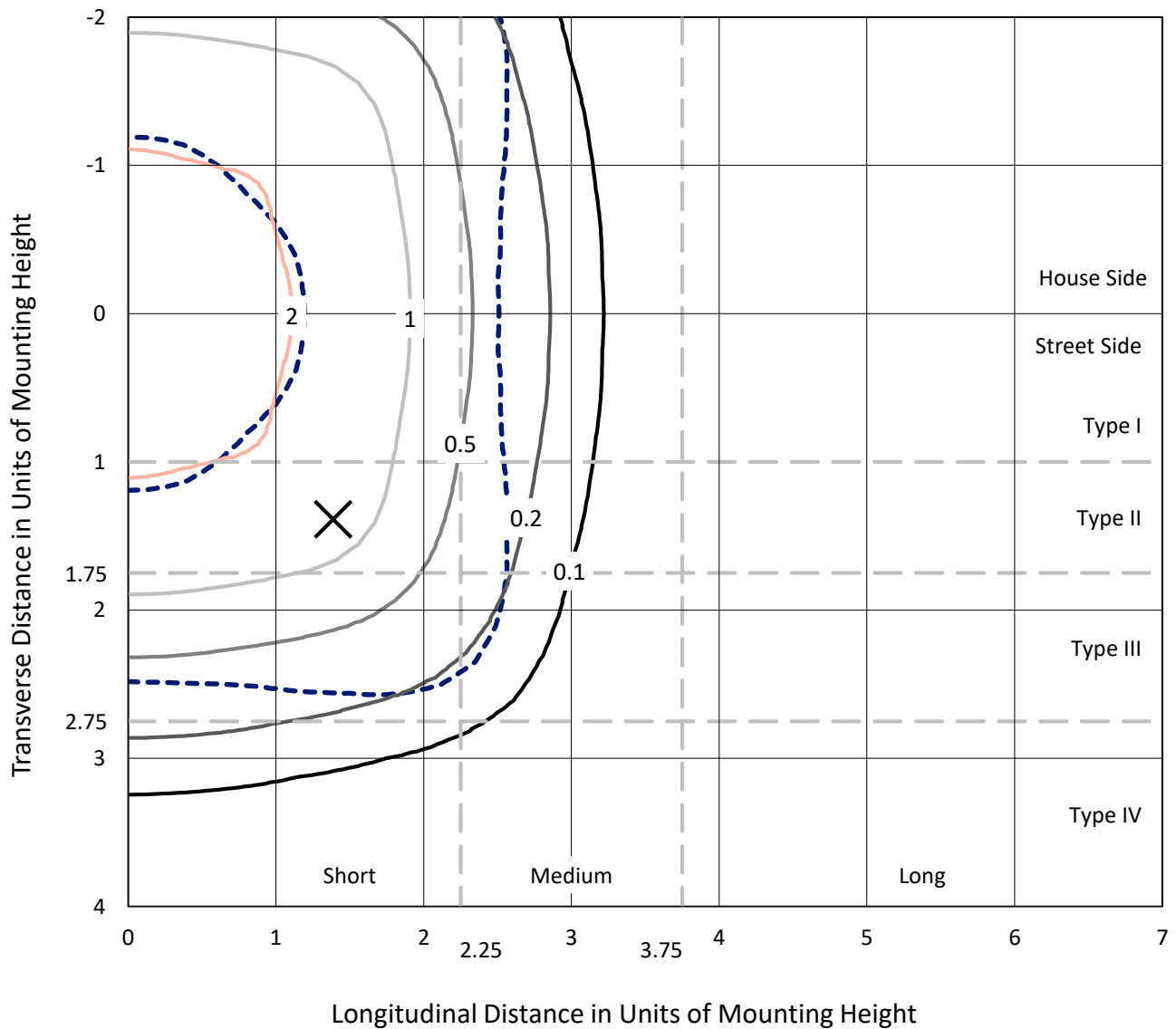
Input Watts (W): 133.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

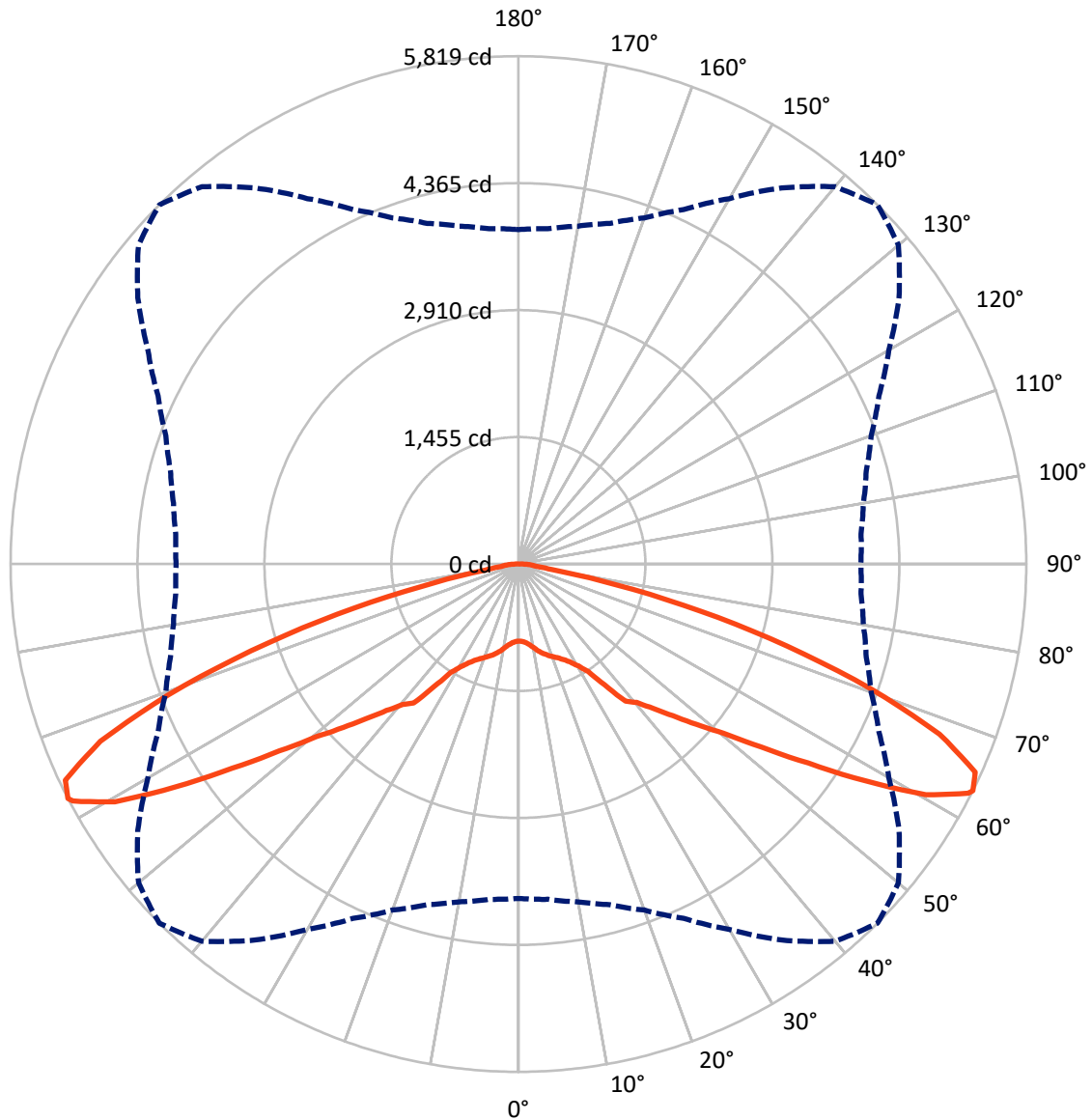
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 2.4 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	6581.1	0.0	6581.1
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	6581.1	0.0	6581.1
	% Fixture	50.0	0.0	50.0
Total	Lumens	13162.2	0.0	13162.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.9	0.7
10°-20°	303.9	2.3
20°-30°	580.4	4.4
30°-40°	1105.7	8.4
40°-50°	1904.0	14.5
50°-60°	3402.4	25.8
60°-70°	4144.2	31.5
70°-80°	1476.2	11.2
80°-90°	156.5	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°	13162.2	100.0
0°-180°	13162.2	100.0



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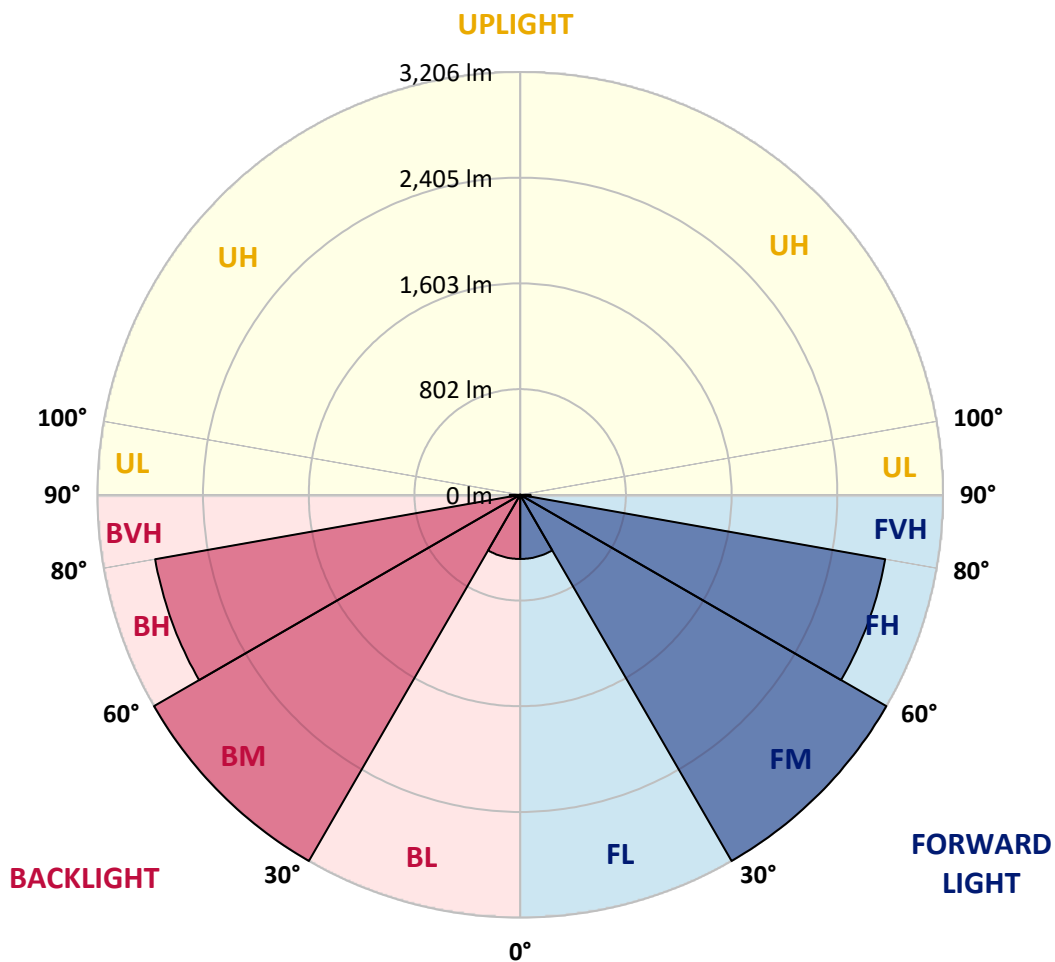
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	486.6	3.7			
FM	(30°-60°)	3206.0	24.4			
FH	(60°-80°)	2810.2	21.4			G2/5000
FVH	(80°-90°)	78.3	0.6			G1/100
BL	(0°-30°)	486.6	3.7	B1/500		
BM	(30°-60°)	3206.0	24.4	B3/5000		
BH	(60°-80°)	2810.2	21.4	B4/5000		G2/5000
BVH	(80°-90°)	78.3	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°	883.5	883.5	883.5	883.5	883.5	883.5	883.5	883.5	883.5	883.5	883.5
2.5°	890.3	889.4	890.3	888.6	888.6	887.7	887.7	887.7	886.0	887.7	886.0
5°	908.9	908.1	908.9	907.2	907.2	905.5	905.5	905.5	903.8	905.5	904.7
7.5°	941.1	942.8	941.1	939.4	939.4	937.7	936.9	936.9	936.0	935.2	936.9
10°	986.0	987.7	985.1	983.5	982.6	981.8	980.1	979.2	979.2	975.8	976.7
12.5°	1033.4	1033.4	1030.9	1030.0	1030.0	1028.3	1025.0	1024.1	1024.1	1022.4	1020.7
15°	1075.8	1075.8	1074.1	1070.7	1071.6	1069.0	1066.5	1064.8	1064.8	1063.1	1061.4
17.5°	1114.8	1114.8	1112.2	1108.8	1107.1	1106.3	1102.9	1101.2	1101.2	1099.5	1097.8
20°	1153.7	1155.4	1151.2	1147.8	1144.4	1141.0	1137.6	1135.9	1133.4	1134.2	1133.4
22.5°	1200.3	1201.2	1194.4	1190.1	1183.4	1179.1	1174.0	1172.4	1169.0	1169.0	1170.7
25°	1259.6	1258.8	1251.1	1243.5	1235.9	1227.4	1219.8	1218.1	1214.7	1213.9	1214.7
27.5°	1337.5	1336.7	1327.4	1317.2	1307.0	1294.3	1285.0	1279.9	1277.4	1274.0	1275.7
30°	1433.3	1434.9	1423.9	1412.1	1399.4	1384.1	1372.3	1365.5	1360.4	1357.0	1358.7
32.5°	1628.1	1626.4	1609.4	1584.0	1556.9	1521.3	1492.5	1480.7	1471.4	1468.0	1470.5
35°	1823.8	1822.1	1815.3	1807.7	1800.9	1778.0	1756.8	1732.3	1711.9	1699.2	1702.6
37.5°	1916.1	1916.1	1911.0	1909.3	1909.3	1922.9	1939.8	1970.3	1994.0	1995.7	1988.1
40°	2060.1	2060.1	2051.6	2047.4	2044.8	2049.1	2060.1	2071.1	2083.0	2085.5	2077.0
42.5°	2229.5	2221.9	2215.9	2207.5	2206.6	2210.9	2222.7	2236.3	2248.1	2258.3	2240.5
45°	2412.5	2405.7	2399.8	2394.7	2398.1	2409.1	2425.2	2448.9	2465.8	2481.1	2466.7
47.5°	2616.6	2602.2	2608.1	2603.1	2611.5	2633.6	2662.4	2697.9	2715.7	2742.8	2720.0
50°	2870.7	2874.1	2870.7	2870.7	2880.9	2909.7	2952.1	3000.3	3030.8	3046.1	3032.5
52.5°	3248.5	3238.4	3215.5	3222.3	3235.8	3281.6	3336.6	3404.4	3443.4	3479.8	3437.4
55°	3661.9	3663.6	3660.2	3669.5	3695.8	3742.4	3811.8	3914.3	3963.5	4027.0	3976.2
57.5°	4004.1	4016.0	4036.3	4064.3	4121.0	4199.0	4335.3	4492.0	4622.5	4691.1	4611.5
60°	4115.1	4127.0	4176.1	4254.0	4360.7	4520.0	4741.1	5009.6	5244.2	5366.2	5262.0
62.5°	3901.6	3923.7	3996.5	4104.1	4280.3	4529.3	4858.0	5255.3	5617.0	5783.8	5657.6
63°	3832.2	3856.7	3931.3	4040.6	4220.1	4480.2	4835.1	5260.3	5643.2	5819.4	5683.0
65°	3523.8	3539.9	3618.7	3743.2	3943.1	4214.2	4608.9	5112.1	5548.3	5752.5	5607.6
67.5°	3038.5	3059.6	3131.6	3239.2	3433.2	3720.4	4108.3	4609.8	5039.3	5202.7	5079.1
70°	2437.0	2460.8	2520.0	2620.0	2772.5	3038.5	3370.5	3838.9	4161.7	4289.6	4157.4
72.5°	1712.8	1723.0	1766.2	1871.2	1985.5	2197.3	2460.8	2825.0	3135.0	3218.9	3091.8
75°	725.1	725.9	782.7	849.6	992.8	1203.7	1433.3	1746.7	2025.4	2155.8	1994.9
77.5°	232.1	234.6	250.7	275.3	322.7	416.8	586.2	758.1	1013.9	1137.6	986.8
80°	194.0	197.4	204.1	209.2	212.6	217.7	237.2	264.3	332.9	387.1	312.6
82.5°	166.9	172.8	188.1	194.0	197.4	199.1	201.6	200.8	196.5	194.8	195.7
85°	127.1	141.5	158.4	172.0	173.7	174.5	179.6	181.3	167.7	154.2	167.7
87.5°	55.1	71.2	109.3	121.1	118.6	110.1	117.7	124.5	113.5	83.0	111.0
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°	883.5	883.5	883.5	883.5	883.5	883.5	883.5	883.5
2.5°	886.9	888.6	888.6	888.6	888.6	889.4	890.3	889.4
5°	905.5	907.2	906.4	907.2	907.2	908.1	908.9	908.1
7.5°	937.7	937.7	937.7	939.4	939.4	941.1	941.1	941.1
10°	977.5	976.7	976.7	978.4	980.1	980.9	982.6	981.8
12.5°	1020.7	1019.0	1019.9	1021.6	1023.3	1024.1	1025.8	1025.0
15°	1059.7	1058.8	1058.8	1061.4	1062.2	1063.1	1066.5	1066.5
17.5°	1097.0	1097.0	1097.0	1100.4	1101.2	1104.6	1107.1	1107.1
20°	1134.2	1134.2	1134.2	1137.6	1140.2	1145.2	1150.3	1149.5
22.5°	1172.4	1173.2	1174.9	1178.3	1184.2	1191.8	1196.1	1196.1
25°	1219.8	1223.2	1226.6	1231.6	1240.1	1250.3	1257.1	1259.6
27.5°	1280.8	1288.4	1296.9	1304.5	1313.8	1326.5	1335.8	1337.5
30°	1363.8	1374.8	1388.4	1398.5	1410.4	1424.8	1435.8	1441.7
32.5°	1481.5	1508.6	1526.4	1562.9	1584.9	1609.4	1629.8	1638.2
35°	1723.8	1750.9	1774.6	1799.2	1804.3	1812.7	1823.8	1826.3
37.5°	1963.5	1941.5	1920.3	1919.5	1913.5	1915.2	1918.6	1922.9
40°	2067.7	2060.9	2049.9	2054.2	2055.0	2055.0	2061.8	2062.6
42.5°	2235.4	2219.3	2206.6	2216.8	2218.5	2220.2	2227.0	2234.6
45°	2448.9	2424.3	2408.2	2402.3	2408.2	2406.5	2415.9	2417.6
47.5°	2692.9	2660.7	2624.2	2612.4	2609.0	2601.4	2617.5	2615.8
50°	2991.9	2940.2	2896.2	2879.2	2870.7	2866.5	2870.7	2870.7
52.5°	3370.5	3318.8	3258.7	3239.2	3232.4	3241.8	3228.2	3242.6
55°	3891.5	3807.6	3725.4	3699.2	3694.9	3690.7	3692.4	3698.3
57.5°	4477.6	4328.6	4218.4	4154.1	4112.6	4092.2	4070.2	4066.8
60°	5043.5	4772.4	4563.2	4420.9	4320.1	4243.8	4204.9	4191.3
62.5°	5316.2	4919.8	4594.5	4352.3	4202.3	4077.8	4009.2	3991.4
63°	5323.9	4901.2	4556.4	4300.6	4126.1	4014.3	3941.4	3922.8
65°	5182.4	4701.3	4297.2	4016.0	3831.3	3714.4	3624.6	3605.2
67.5°	4667.4	4200.6	3787.3	3501.8	3301.9	3207.9	3108.8	3106.2
70°	3830.5	3413.7	3065.6	2803.0	2636.1	2542.9	2442.1	2444.7
72.5°	2800.4	2430.3	2190.5	1985.5	1809.4	1721.3	1626.4	1635.7
75°	1685.7	1355.3	1139.3	961.4	780.2	671.7	598.9	557.4
77.5°	720.9	493.0	354.1	281.2	237.2	219.4	210.9	208.4
80°	250.7	221.9	209.2	205.8	203.3	199.9	194.0	188.1
82.5°	203.3	203.3	196.5	195.7	188.1	182.1	166.9	159.3
85°	180.4	177.0	171.1	168.6	166.9	154.2	134.7	124.5
87.5°	119.4	111.0	105.9	108.4	105.0	94.0	57.6	45.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)