

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: P143665

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P143665
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
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM
Light Source: (35) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12827.3 lumens
Efficiency: N/A
Efficacy: 96.2 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

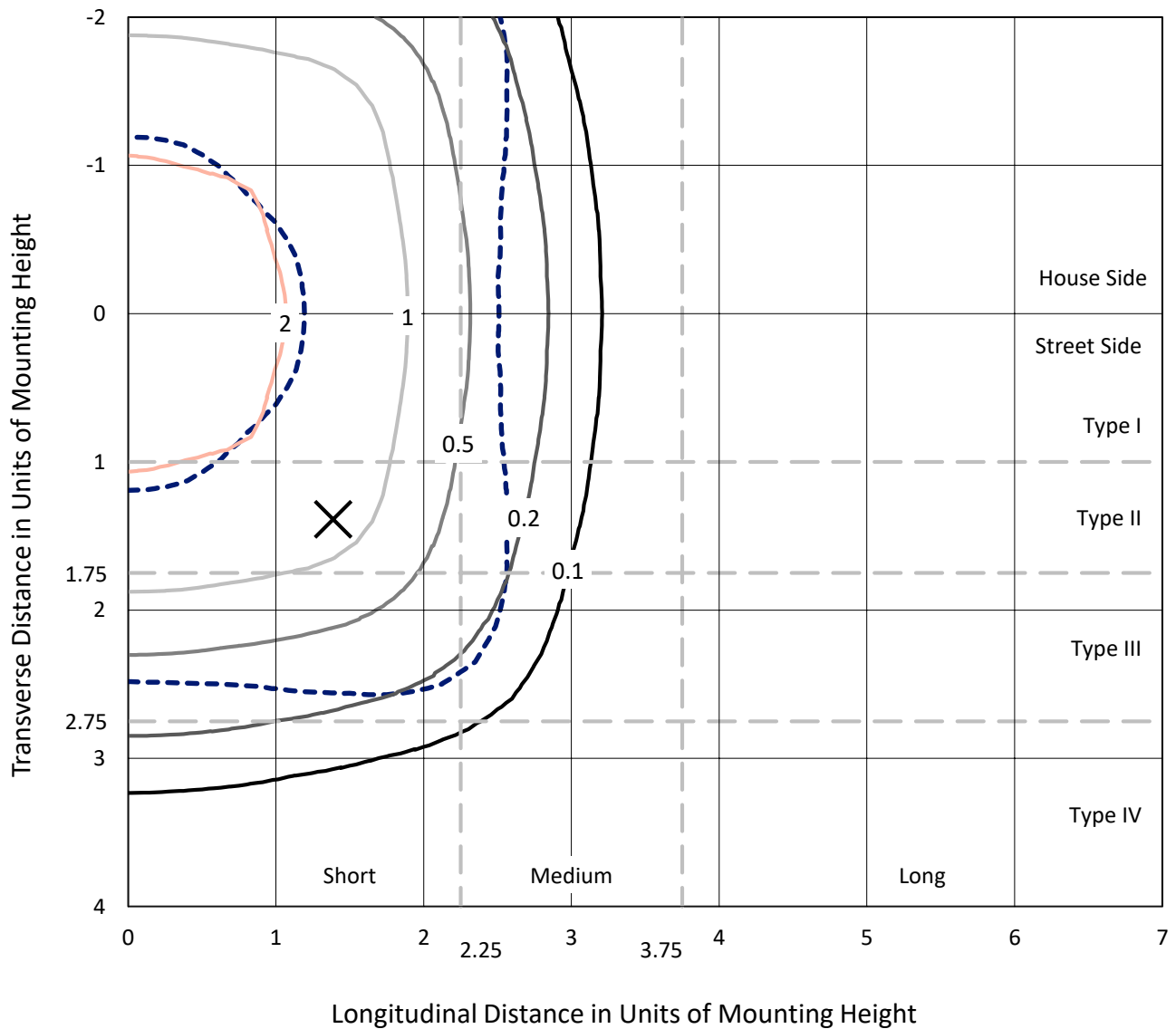
Input Watts (W): 133.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

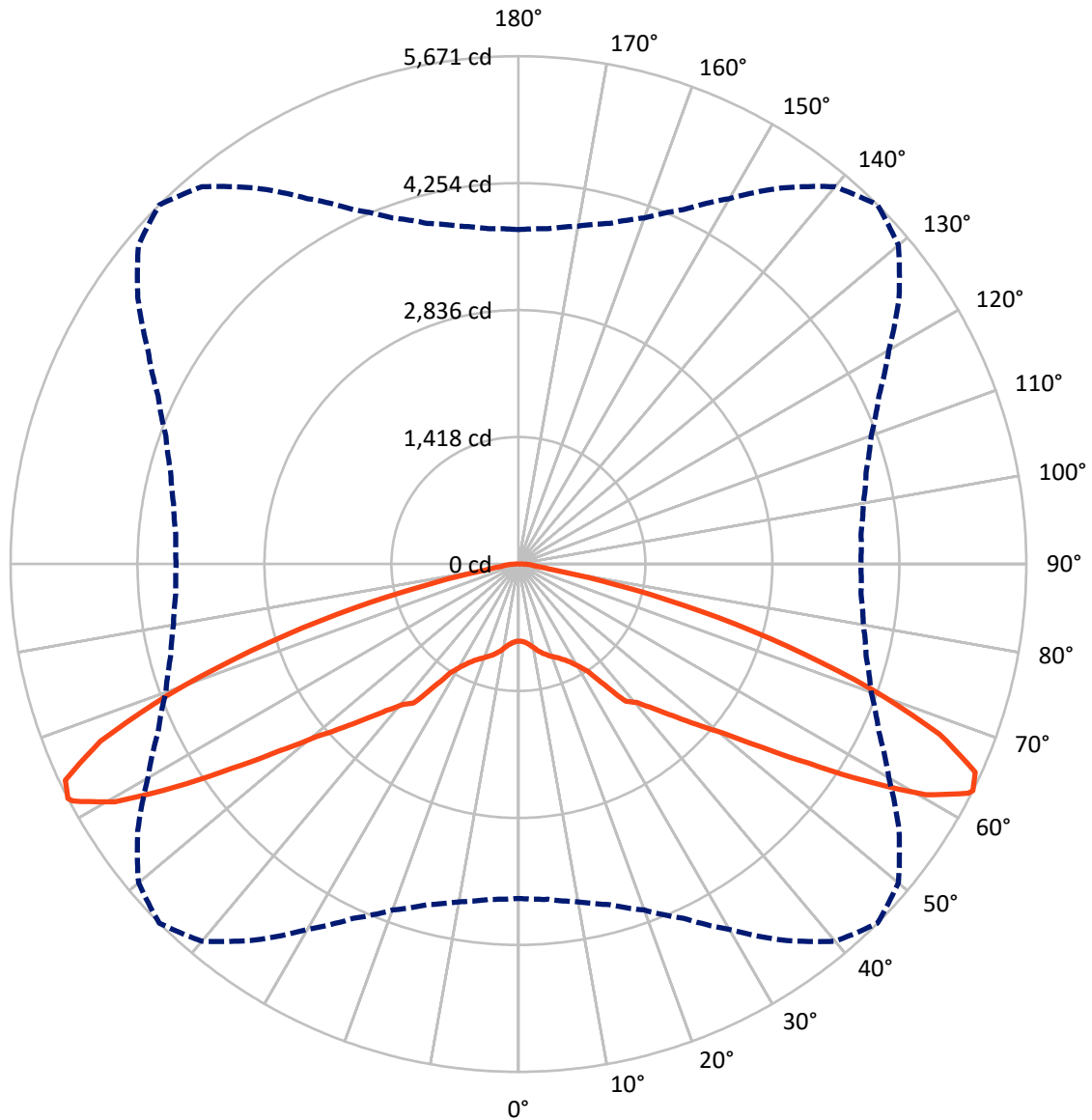
× Max cd
 - - - 1/2 Max cd



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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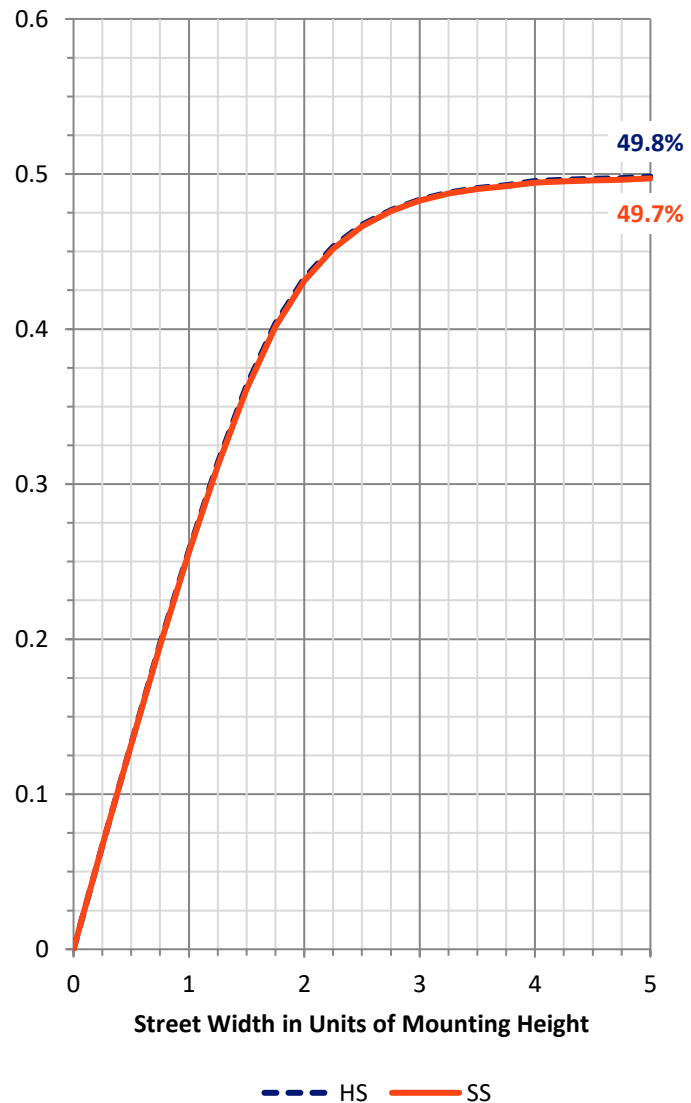
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6413.7	0.0	6413.7
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	6413.7	0.0	6413.7
	% Fixture	50.0	0.0	50.0
Total	Lumens	12827.3	0.0	12827.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.7	0.7
10°-20°	296.1	2.3
20°-30°	565.6	4.4
30°-40°	1077.6	8.4
40°-50°	1855.6	14.5
50°-60°	3315.8	25.8
60°-70°	4038.7	31.5
70°-80°	1438.6	11.2
80°-90°	152.5	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°	12827.3	100.0
0°-180°	12827.3	100.0

Coefficient of Utilization

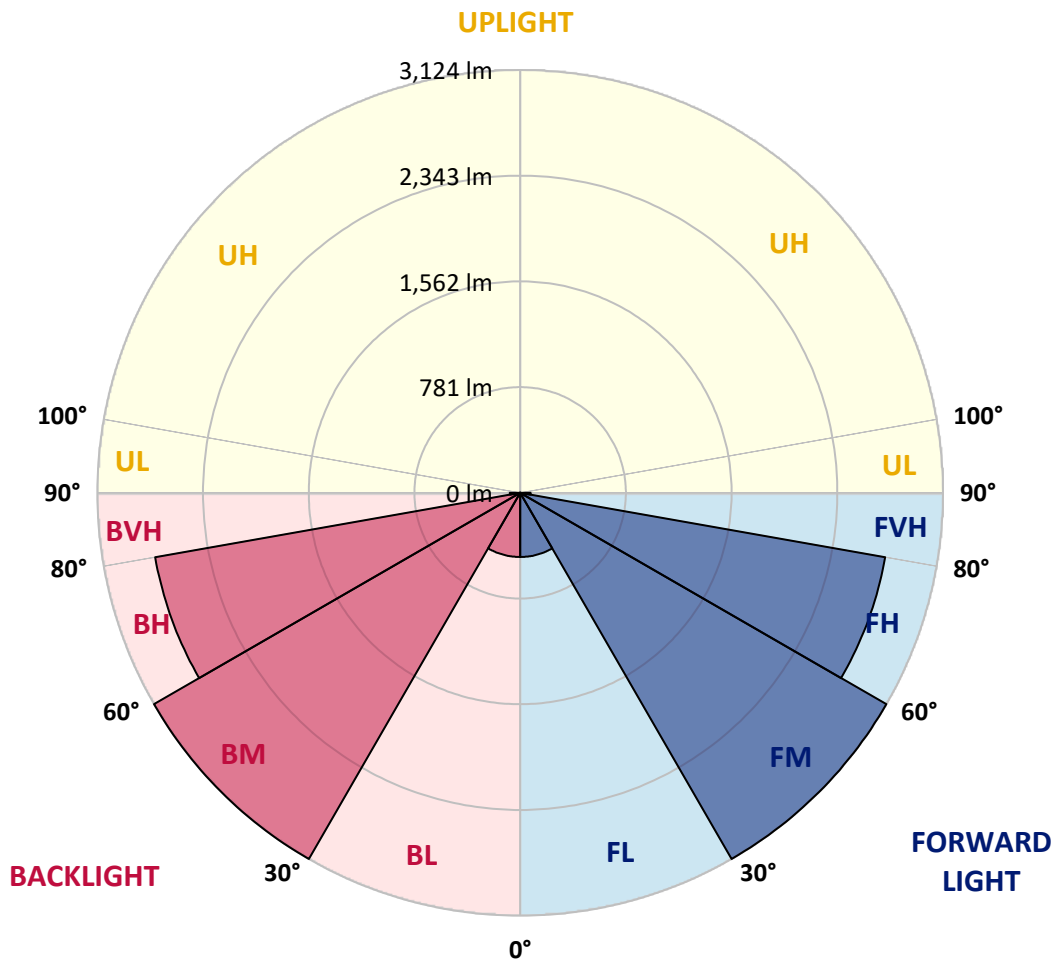


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	474.2	3.7			
FM	(30°-60°)	3124.5	24.4			
FH	(60°-80°)	2738.7	21.4			G2/5000
FVH	(80°-90°)	76.3	0.6			G1/100
BL	(0°-30°)	474.2	3.7	B1/500		
BM	(30°-60°)	3124.5	24.4	B3/5000		
BH	(60°-80°)	2738.7	21.4	B4/5000		G2/5000
BVH	(80°-90°)	76.3	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°	861.0	861.0	861.0	861.0	861.0	861.0	861.0	861.0	861.0	861.0	861.0
2.5°	867.6	866.8	867.6	866.0	866.0	865.2	865.2	865.2	863.5	865.2	863.5
5°	885.8	885.0	885.8	884.1	884.1	882.5	882.5	882.5	880.8	882.5	881.7
7.5°	917.2	918.8	917.2	915.5	915.5	913.9	913.0	913.0	912.2	911.4	913.0
10°	960.9	962.6	960.1	958.4	957.6	956.8	955.1	954.3	954.3	951.0	951.8
12.5°	1007.1	1007.1	1004.7	1003.8	1003.8	1002.2	998.9	998.1	998.1	996.4	994.8
15°	1048.4	1048.4	1046.8	1043.5	1044.3	1041.8	1039.3	1037.7	1037.7	1036.0	1034.4
17.5°	1086.4	1086.4	1083.9	1080.6	1079.0	1078.1	1074.8	1073.2	1073.2	1071.5	1069.9
20°	1124.4	1126.0	1121.9	1118.6	1115.3	1112.0	1108.7	1107.0	1104.6	1105.4	1104.6
22.5°	1169.8	1170.6	1164.0	1159.9	1153.3	1149.1	1144.2	1142.5	1139.2	1139.2	1140.9
25°	1227.6	1226.7	1219.3	1211.9	1204.4	1196.2	1188.8	1187.1	1183.8	1183.0	1183.8
27.5°	1303.5	1302.7	1293.6	1283.7	1273.8	1261.4	1252.3	1247.4	1244.9	1241.6	1243.2
30°	1396.8	1398.4	1387.7	1376.2	1363.8	1348.9	1337.4	1330.7	1325.8	1322.5	1324.1
32.5°	1586.7	1585.0	1568.5	1543.7	1517.3	1482.6	1454.6	1443.0	1433.9	1430.6	1433.1
35°	1777.4	1775.7	1769.1	1761.7	1755.1	1732.8	1712.1	1688.2	1668.4	1656.0	1659.3
37.5°	1867.3	1867.3	1862.4	1860.7	1860.7	1873.9	1890.5	1920.2	1943.3	1944.9	1937.5
40°	2007.7	2007.7	1999.4	1995.3	1992.8	1996.9	2007.7	2018.4	2030.0	2032.4	2024.2
42.5°	2172.8	2165.4	2159.6	2151.3	2150.5	2154.6	2166.2	2179.4	2190.9	2200.8	2183.5
45°	2351.1	2344.5	2338.7	2333.8	2337.1	2347.8	2363.5	2386.6	2403.1	2418.0	2403.9
47.5°	2550.0	2536.0	2541.8	2536.8	2545.1	2566.6	2594.6	2629.3	2646.6	2673.0	2650.8
50°	2797.7	2801.0	2797.7	2797.7	2807.6	2835.7	2877.0	2924.0	2953.7	2968.6	2955.4
52.5°	3165.9	3156.0	3133.7	3140.3	3153.5	3198.1	3251.7	3317.8	3355.8	3391.3	3350.0
55°	3568.7	3570.4	3567.1	3576.2	3601.8	3647.2	3714.9	3814.8	3862.6	3924.5	3875.0
57.5°	3902.3	3913.8	3933.6	3960.9	4016.2	4092.1	4225.0	4377.8	4504.9	4571.8	4494.2
60°	4010.4	4022.0	4069.8	4145.8	4249.8	4405.0	4620.5	4882.2	5110.8	5229.7	5128.2
62.5°	3802.4	3823.8	3894.8	3999.7	4171.4	4414.1	4734.4	5121.6	5474.1	5636.7	5513.7
63°	3734.7	3758.6	3831.3	3937.8	4112.8	4366.2	4712.1	5126.5	5499.6	5671.4	5538.4
65°	3434.2	3449.9	3526.6	3648.0	3842.8	4107.0	4491.7	4982.0	5407.2	5606.1	5465.0
67.5°	2961.2	2981.8	3052.0	3156.8	3345.9	3625.7	4003.8	4492.5	4911.0	5070.4	4949.8
70°	2375.0	2398.1	2455.9	2553.3	2701.9	2961.2	3284.8	3741.3	4055.8	4180.5	4051.7
72.5°	1669.2	1679.1	1721.2	1823.6	1935.0	2141.4	2398.1	2753.1	3055.3	3137.0	3013.2
75°	706.6	707.5	762.8	828.0	967.5	1173.1	1396.8	1702.2	1973.8	2101.0	1944.1
77.5°	226.2	228.7	244.4	268.3	314.5	406.2	571.3	738.8	988.2	1108.7	961.7
80°	189.0	192.3	199.0	203.9	207.2	212.2	231.1	257.6	324.4	377.3	304.6
82.5°	162.6	168.4	183.3	189.0	192.3	194.0	196.5	195.6	191.5	189.9	190.7
85°	123.8	137.9	154.4	167.6	169.2	170.1	175.0	176.7	163.5	150.2	163.5
87.5°	53.7	69.3	106.5	118.1	115.6	107.3	114.7	121.4	110.6	80.9	108.1
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°	861.0	861.0	861.0	861.0	861.0	861.0	861.0	861.0
2.5°	864.3	866.0	866.0	866.0	866.0	866.8	867.6	866.8
5°	882.5	884.1	883.3	884.1	884.1	885.0	885.8	885.0
7.5°	913.9	913.9	913.9	915.5	915.5	917.2	917.2	917.2
10°	952.7	951.8	951.8	953.5	955.1	956.0	957.6	956.8
12.5°	994.8	993.1	993.9	995.6	997.2	998.1	999.7	998.9
15°	1032.7	1031.9	1031.9	1034.4	1035.2	1036.0	1039.3	1039.3
17.5°	1069.1	1069.1	1069.1	1072.4	1073.2	1076.5	1079.0	1079.0
20°	1105.4	1105.4	1105.4	1108.7	1111.2	1116.1	1121.1	1120.2
22.5°	1142.5	1143.4	1145.0	1148.3	1154.1	1161.5	1165.6	1165.6
25°	1188.8	1192.1	1195.4	1200.3	1208.6	1218.5	1225.1	1227.6
27.5°	1248.2	1255.6	1263.9	1271.3	1280.4	1292.8	1301.9	1303.5
30°	1329.1	1339.8	1353.0	1362.9	1374.5	1388.5	1399.3	1405.0
32.5°	1443.8	1470.3	1487.6	1523.1	1544.6	1568.5	1588.3	1596.6
35°	1679.9	1706.4	1729.5	1753.4	1758.4	1766.6	1777.4	1779.8
37.5°	1913.6	1892.1	1871.5	1870.6	1864.9	1866.5	1869.8	1873.9
40°	2015.1	2008.5	1997.8	2001.9	2002.7	2002.7	2009.3	2010.2
42.5°	2178.6	2162.9	2150.5	2160.4	2162.0	2163.7	2170.3	2177.7
45°	2386.6	2362.7	2347.0	2341.2	2347.0	2345.3	2354.4	2356.0
47.5°	2624.3	2593.0	2557.5	2545.9	2542.6	2535.2	2550.9	2549.2
50°	2915.8	2865.4	2822.5	2806.0	2797.7	2793.6	2797.7	2797.7
52.5°	3284.8	3234.4	3175.8	3156.8	3150.2	3159.3	3146.1	3160.1
55°	3792.5	3710.7	3630.7	3605.1	3600.9	3596.8	3598.5	3604.2
57.5°	4363.7	4218.4	4111.1	4048.4	4007.9	3988.1	3966.6	3963.3
60°	4915.2	4651.0	4447.1	4308.4	4210.2	4135.9	4097.9	4084.7
62.5°	5181.0	4794.6	4477.6	4241.5	4095.4	3974.1	3907.2	3889.9
63°	5188.4	4776.5	4440.5	4191.2	4021.1	3912.2	3841.2	3823.0
65°	5050.6	4581.7	4187.9	3913.8	3733.8	3619.9	3532.4	3513.4
67.5°	4548.6	4093.8	3690.9	3412.7	3217.9	3126.3	3029.7	3027.2
70°	3733.0	3326.9	2987.6	2731.7	2569.0	2478.2	2380.0	2382.5
72.5°	2729.2	2368.4	2134.8	1935.0	1763.3	1677.5	1585.0	1594.1
75°	1642.8	1320.8	1110.3	937.0	760.3	654.6	583.6	543.2
77.5°	702.5	480.5	345.1	274.1	231.1	213.8	205.6	203.1
80°	244.4	216.3	203.9	200.6	198.1	194.8	189.0	183.3
82.5°	198.1	198.1	191.5	190.7	183.3	177.5	162.6	155.2
85°	175.8	172.5	166.8	164.3	162.6	150.2	131.3	121.4
87.5°	116.4	108.1	103.2	105.7	102.4	91.6	56.1	44.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)