

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: P143640

Luminaire Tested: **LDRL-5MQ-E03-E**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P143640
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-E03-E
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM
Light Source: (63) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9323 lumens
Efficiency: N/A
Efficacy: 124.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B3 - U0 - G2

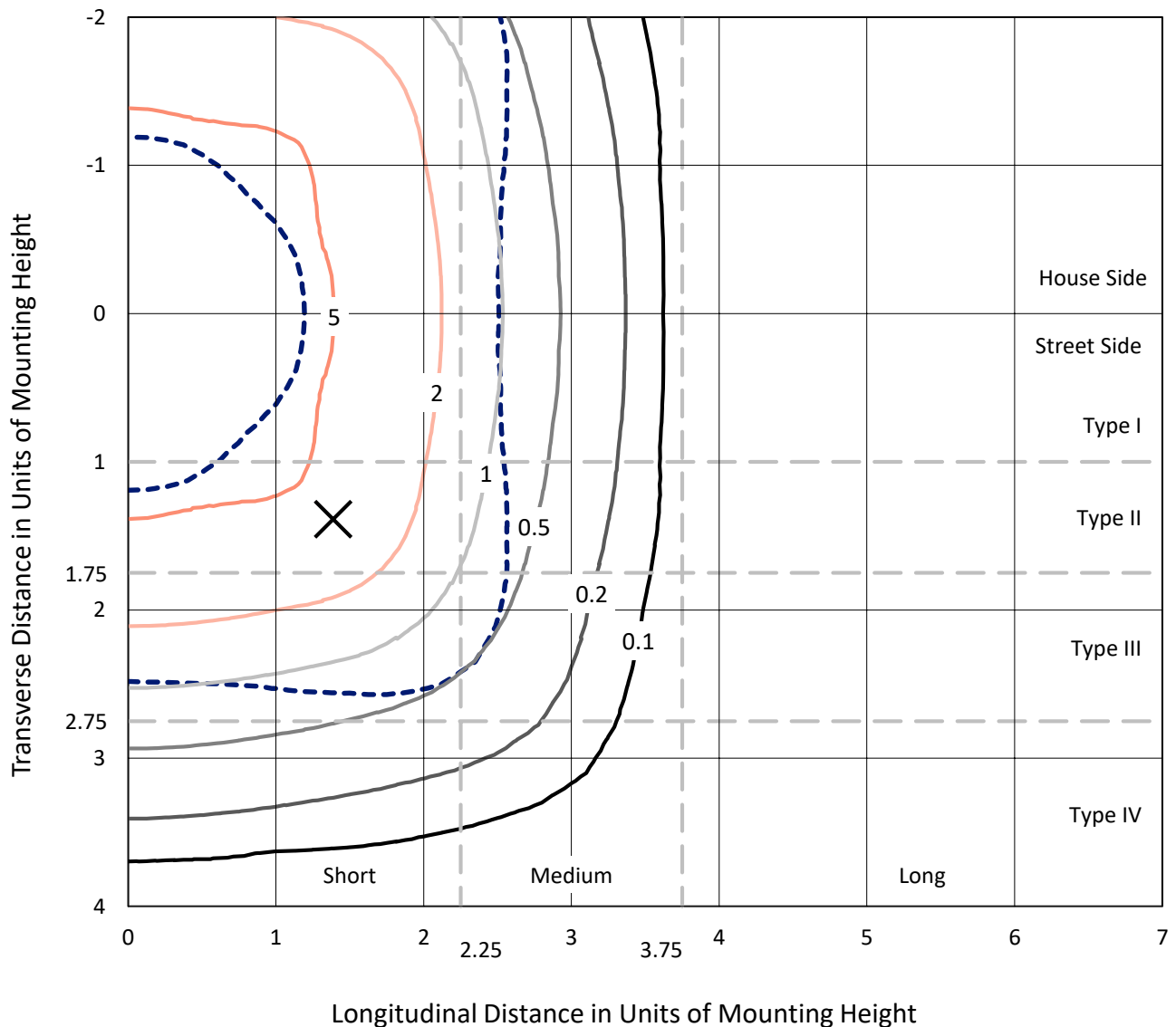
Input Watts (W): 75.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

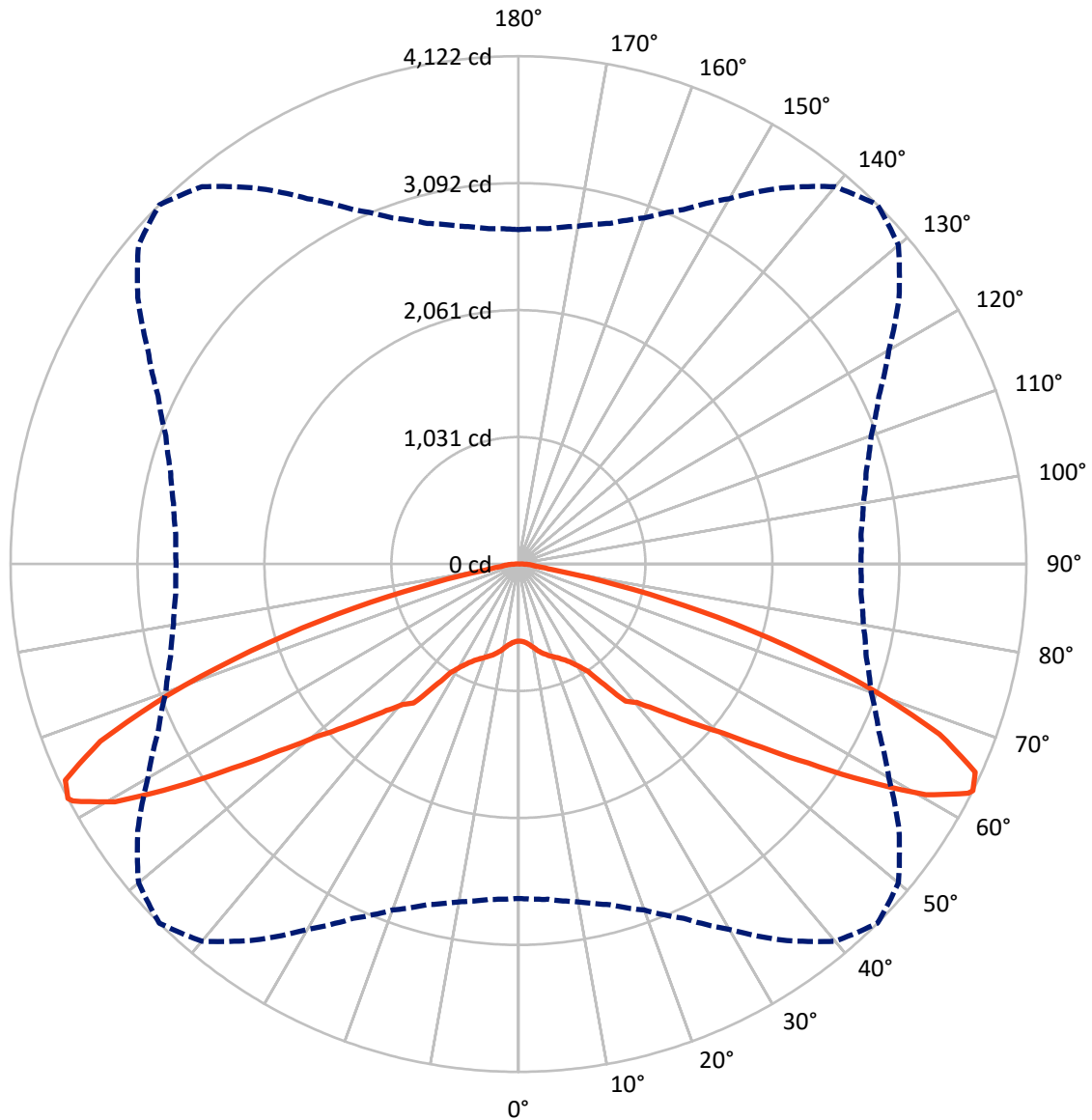
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.9 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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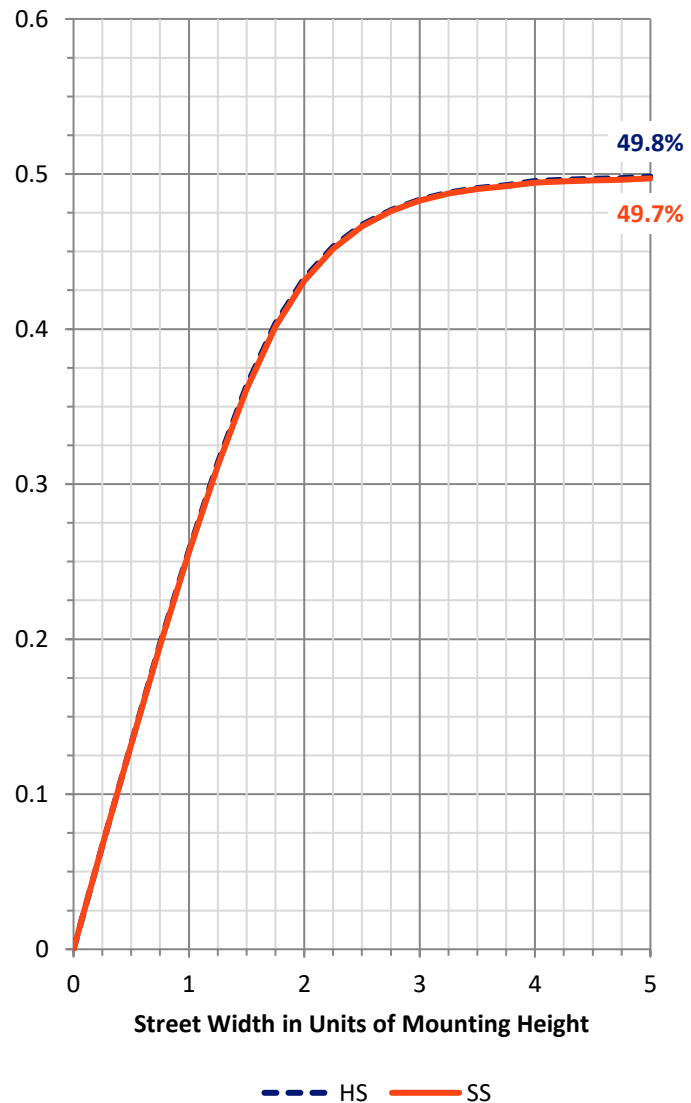
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4661.5	0.0	4661.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	4661.5	0.0	4661.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	9323.0	0.0	9323.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.0	0.7
10°-20°	215.2	2.3
20°-30°	411.1	4.4
30°-40°	783.2	8.4
40°-50°	1348.6	14.5
50°-60°	2410.0	25.8
60°-70°	2935.4	31.5
70°-80°	1045.6	11.2
80°-90°	110.9	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°	9323.0	100.0
0°-180°	9323.0	100.0



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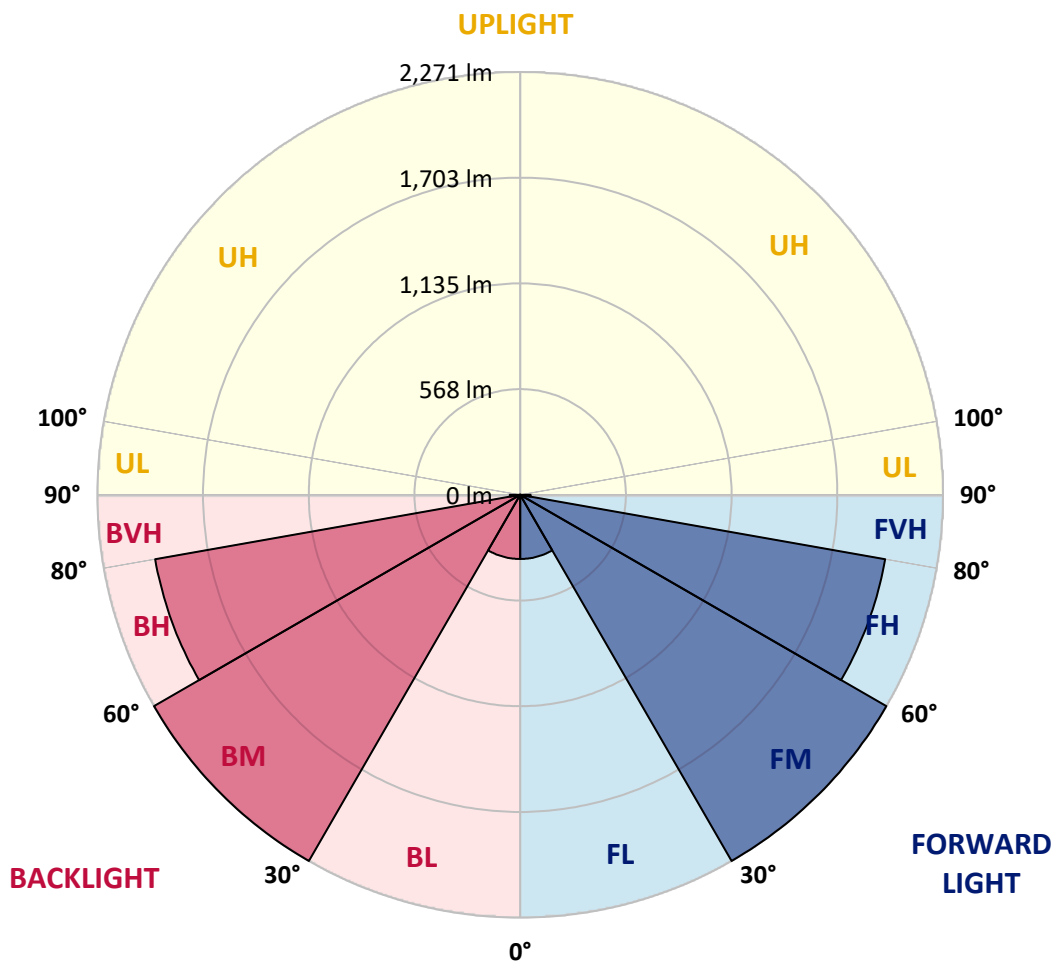
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	344.7	3.7			
FM	(30°-60°)	2270.9	24.4			
FH	(60°-80°)	1990.5	21.4			G2/5000
FVH	(80°-90°)	55.4	0.6			G1/100
BL	(0°-30°)	344.7	3.7	B1/500		
BM	(30°-60°)	2270.9	24.4	B2/2500		
BH	(60°-80°)	1990.5	21.4	B3/2500		G2/5000
BVH	(80°-90°)	55.4	0.6			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G2

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	625.8	625.8	625.8	625.8	625.8	625.8	625.8	625.8	625.8	625.8	625.8
2.5°	630.6	630.0	630.6	629.4	629.4	628.8	628.8	628.8	627.6	628.8	627.6
5°	643.8	643.2	643.8	642.6	642.6	641.4	641.4	641.4	640.2	641.4	640.8
7.5°	666.6	667.8	666.6	665.4	665.4	664.2	663.6	663.6	663.0	662.4	663.6
10°	698.4	699.6	697.8	696.6	696.0	695.4	694.2	693.6	693.6	691.2	691.8
12.5°	732.0	732.0	730.2	729.6	729.6	728.4	726.0	725.4	725.4	724.2	723.0
15°	762.0	762.0	760.8	758.4	759.0	757.2	755.4	754.2	754.2	753.0	751.8
17.5°	789.6	789.6	787.8	785.4	784.2	783.6	781.2	780.0	780.0	778.8	777.6
20°	817.2	818.4	815.4	813.0	810.6	808.2	805.8	804.6	802.8	803.4	802.8
22.5°	850.2	850.8	846.0	843.0	838.2	835.2	831.6	830.4	828.0	828.0	829.2
25°	892.2	891.6	886.2	880.8	875.4	869.4	864.0	862.8	860.4	859.8	860.4
27.5°	947.4	946.8	940.2	933.0	925.8	916.8	910.2	906.6	904.8	902.4	903.6
30°	1015.2	1016.4	1008.6	1000.2	991.2	980.4	972.0	967.2	963.6	961.2	962.4
32.5°	1153.2	1152.0	1140.0	1122.0	1102.8	1077.6	1057.2	1048.8	1042.2	1039.8	1041.6
35°	1291.8	1290.6	1285.8	1280.4	1275.6	1259.4	1244.4	1227.0	1212.6	1203.6	1206.0
37.5°	1357.2	1357.2	1353.6	1352.4	1352.4	1362.0	1374.0	1395.6	1412.4	1413.6	1408.2
40°	1459.2	1459.2	1453.2	1450.2	1448.4	1451.4	1459.2	1467.0	1475.4	1477.2	1471.2
42.5°	1579.2	1573.8	1569.6	1563.6	1563.0	1566.0	1574.4	1584.0	1592.4	1599.6	1587.0
45°	1708.8	1704.0	1699.8	1696.2	1698.6	1706.4	1717.8	1734.6	1746.6	1757.4	1747.2
47.5°	1853.4	1843.2	1847.4	1843.8	1849.8	1865.4	1885.8	1911.0	1923.6	1942.8	1926.6
50°	2033.4	2035.8	2033.4	2033.4	2040.6	2061.0	2091.0	2125.2	2146.8	2157.6	2148.0
52.5°	2301.0	2293.8	2277.6	2282.4	2292.0	2324.4	2363.4	2411.4	2439.0	2464.8	2434.8
55°	2593.8	2595.0	2592.6	2599.2	2617.8	2650.8	2700.0	2772.6	2807.4	2852.4	2816.4
57.5°	2836.2	2844.6	2859.0	2878.8	2919.0	2974.2	3070.8	3181.8	3274.2	3322.8	3266.4
60°	2914.8	2923.2	2958.0	3013.2	3088.8	3201.6	3358.2	3548.4	3714.6	3801.0	3727.2
62.5°	2763.6	2779.2	2830.8	2907.0	3031.8	3208.2	3441.0	3722.4	3978.6	4096.8	4007.4
63°	2714.4	2731.8	2784.6	2862.0	2989.2	3173.4	3424.8	3726.0	3997.2	4122.0	4025.4
65°	2496.0	2507.4	2563.2	2651.4	2793.0	2985.0	3264.6	3621.0	3930.0	4074.6	3972.0
67.5°	2152.2	2167.2	2218.2	2294.4	2431.8	2635.2	2910.0	3265.2	3569.4	3685.2	3597.6
70°	1726.2	1743.0	1785.0	1855.8	1963.8	2152.2	2387.4	2719.2	2947.8	3038.4	2944.8
72.5°	1213.2	1220.4	1251.0	1325.4	1406.4	1556.4	1743.0	2001.0	2220.6	2280.0	2190.0
75°	513.6	514.2	554.4	601.8	703.2	852.6	1015.2	1237.2	1434.6	1527.0	1413.0
77.5°	164.4	166.2	177.6	195.0	228.6	295.2	415.2	537.0	718.2	805.8	699.0
80°	137.4	139.8	144.6	148.2	150.6	154.2	168.0	187.2	235.8	274.2	221.4
82.5°	118.2	122.4	133.2	137.4	139.8	141.0	142.8	142.2	139.2	138.0	138.6
85°	90.0	100.2	112.2	121.8	123.0	123.6	127.2	128.4	118.8	109.2	118.8
87.5°	39.0	50.4	77.4	85.8	84.0	78.0	83.4	88.2	80.4	58.8	78.6
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°	625.8	625.8	625.8	625.8	625.8	625.8	625.8	625.8
2.5°	628.2	629.4	629.4	629.4	629.4	630.0	630.6	630.0
5°	641.4	642.6	642.0	642.6	642.6	643.2	643.8	643.2
7.5°	664.2	664.2	664.2	665.4	665.4	666.6	666.6	666.6
10°	692.4	691.8	691.8	693.0	694.2	694.8	696.0	695.4
12.5°	723.0	721.8	722.4	723.6	724.8	725.4	726.6	726.0
15°	750.6	750.0	750.0	751.8	752.4	753.0	755.4	755.4
17.5°	777.0	777.0	777.0	779.4	780.0	782.4	784.2	784.2
20°	803.4	803.4	803.4	805.8	807.6	811.2	814.8	814.2
22.5°	830.4	831.0	832.2	834.6	838.8	844.2	847.2	847.2
25°	864.0	866.4	868.8	872.4	878.4	885.6	890.4	892.2
27.5°	907.2	912.6	918.6	924.0	930.6	939.6	946.2	947.4
30°	966.0	973.8	983.4	990.6	999.0	1009.2	1017.0	1021.2
32.5°	1049.4	1068.6	1081.2	1107.0	1122.6	1140.0	1154.4	1160.4
35°	1221.0	1240.2	1257.0	1274.4	1278.0	1284.0	1291.8	1293.6
37.5°	1390.8	1375.2	1360.2	1359.6	1355.4	1356.6	1359.0	1362.0
40°	1464.6	1459.8	1452.0	1455.0	1455.6	1455.6	1460.4	1461.0
42.5°	1583.4	1572.0	1563.0	1570.2	1571.4	1572.6	1577.4	1582.8
45°	1734.6	1717.2	1705.8	1701.6	1705.8	1704.6	1711.2	1712.4
47.5°	1907.4	1884.6	1858.8	1850.4	1848.0	1842.6	1854.0	1852.8
50°	2119.2	2082.6	2051.4	2039.4	2033.4	2030.4	2033.4	2033.4
52.5°	2387.4	2350.8	2308.2	2294.4	2289.6	2296.2	2286.6	2296.8
55°	2756.4	2697.0	2638.8	2620.2	2617.2	2614.2	2615.4	2619.6
57.5°	3171.6	3066.0	2988.0	2942.4	2913.0	2898.6	2883.0	2880.6
60°	3572.4	3380.4	3232.2	3131.4	3060.0	3006.0	2978.4	2968.8
62.5°	3765.6	3484.8	3254.4	3082.8	2976.6	2888.4	2839.8	2827.2
63°	3771.0	3471.6	3227.4	3046.2	2922.6	2843.4	2791.8	2778.6
65°	3670.8	3330.0	3043.8	2844.6	2713.8	2631.0	2567.4	2553.6
67.5°	3306.0	2975.4	2682.6	2480.4	2338.8	2272.2	2202.0	2200.2
70°	2713.2	2418.0	2171.4	1985.4	1867.2	1801.2	1729.8	1731.6
72.5°	1983.6	1721.4	1551.6	1406.4	1281.6	1219.2	1152.0	1158.6
75°	1194.0	960.0	807.0	681.0	552.6	475.8	424.2	394.8
77.5°	510.6	349.2	250.8	199.2	168.0	155.4	149.4	147.6
80°	177.6	157.2	148.2	145.8	144.0	141.6	137.4	133.2
82.5°	144.0	144.0	139.2	138.6	133.2	129.0	118.2	112.8
85°	127.8	125.4	121.2	119.4	118.2	109.2	95.4	88.2
87.5°	84.6	78.6	75.0	76.8	74.4	66.6	40.8	32.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)