

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: P143663

Luminaire Tested: **LDRL-5MQ-F05-E-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P143663
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-8030
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM
Light Source: (35) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10826.1 lumens
Efficiency: N/A
Efficacy: 81.2 lumens/watt
Luminous Opening: Rectangular (W 0.83' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B3 - U0 - G2

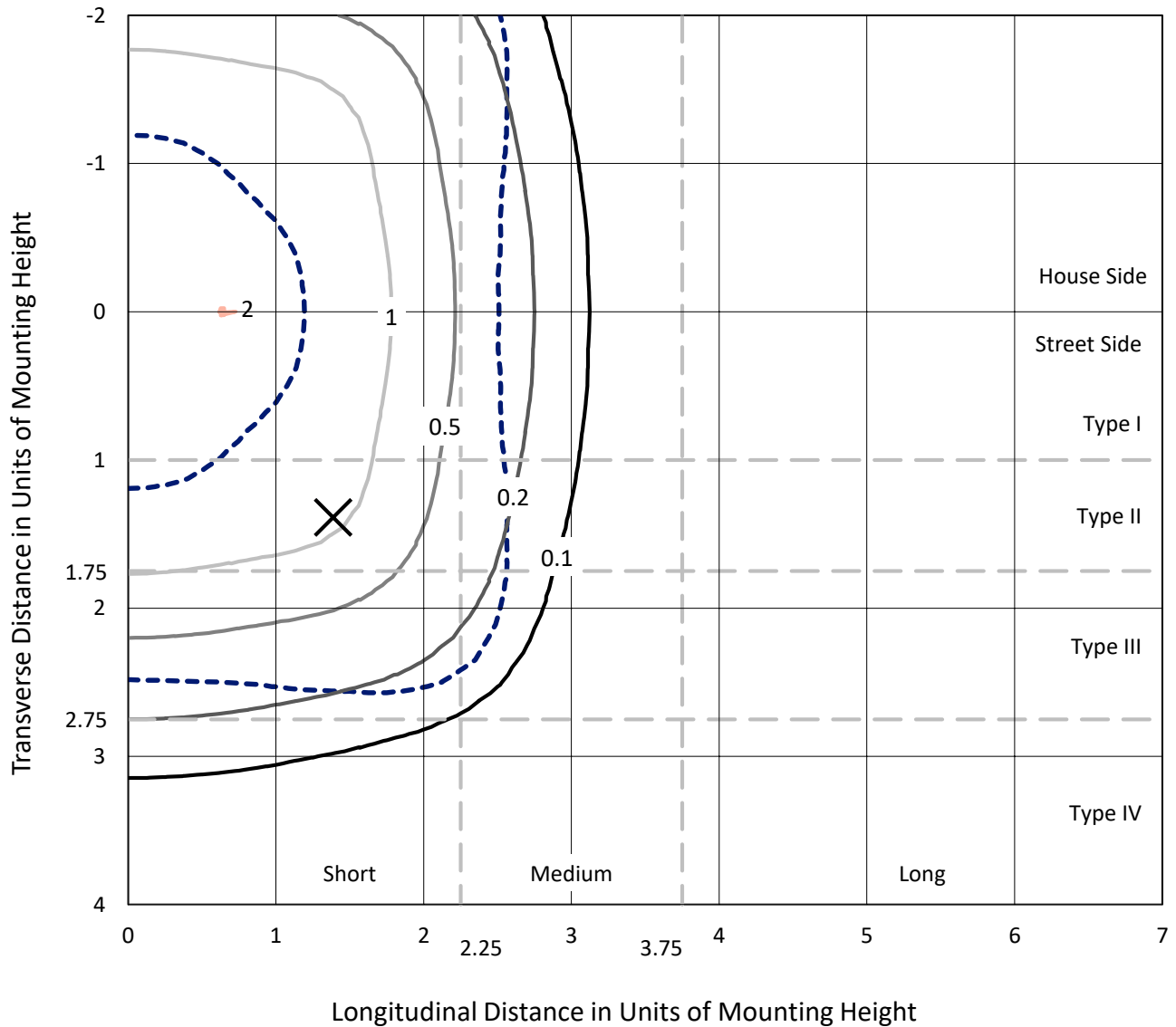
Input Watts (W): 133.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

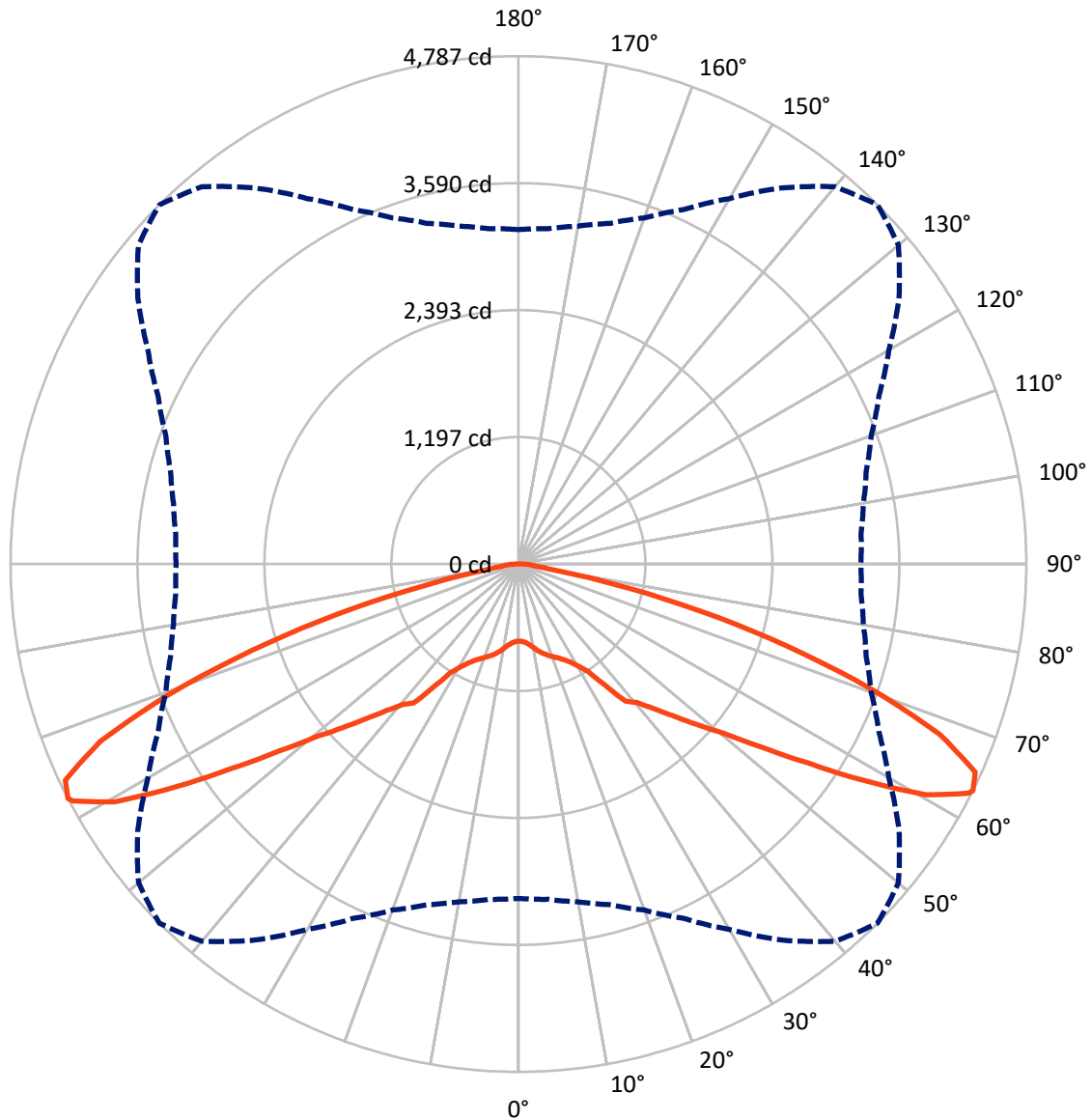
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 2 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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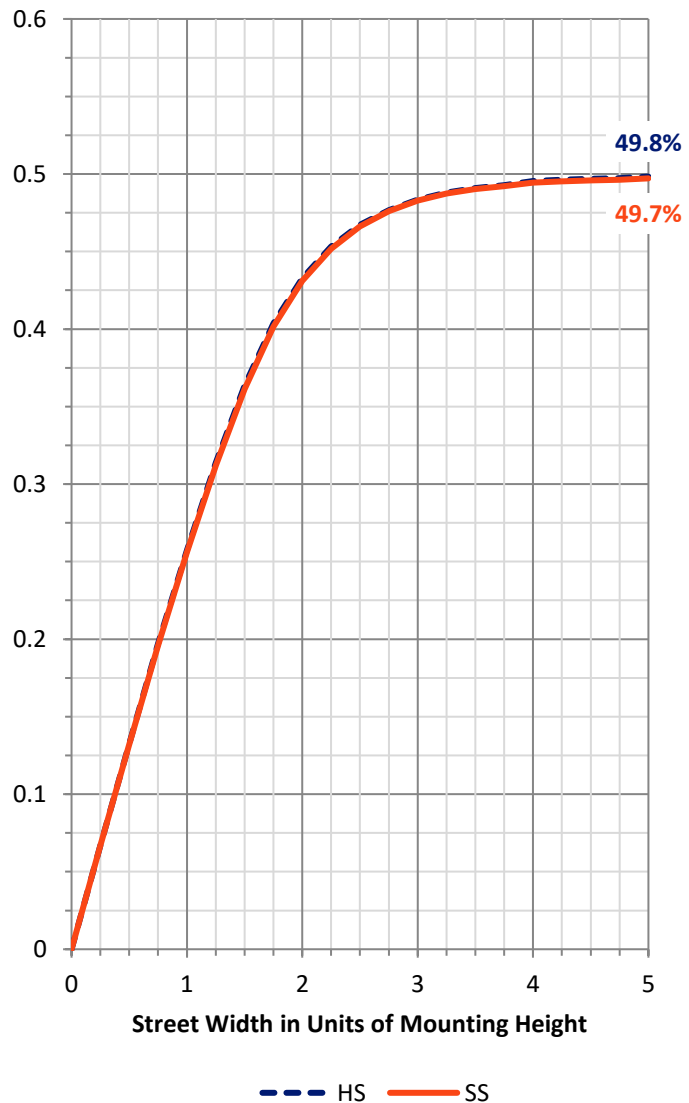
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5413.1	0.0	5413.1
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	5413.1	0.0	5413.1
	% Fixture	50.0	0.0	50.0
Total	Lumens	10826.1	0.0	10826.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.2	0.7
10°-20°	249.9	2.3
20°-30°	477.4	4.4
30°-40°	909.5	8.4
40°-50°	1566.1	14.5
50°-60°	2798.5	25.8
60°-70°	3408.7	31.5
70°-80°	1214.2	11.2
80°-90°	128.7	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°	10826.1	100.0
0°-180°	10826.1	100.0



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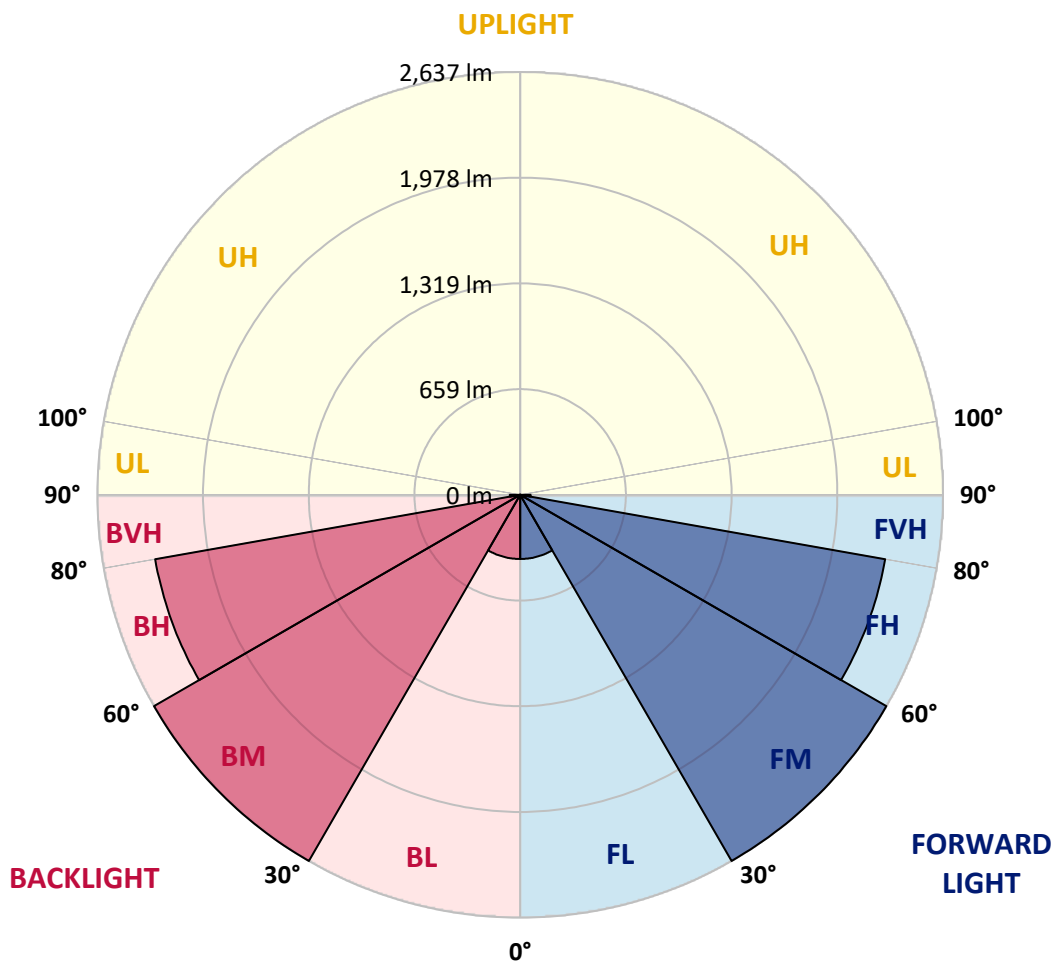
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	400.2	3.7			
FM	(30°-60°)	2637.0	24.4			
FH	(60°-80°)	2311.4	21.4			G2/5000
FVH	(80°-90°)	64.4	0.6			G1/100
BL	(0°-30°)	400.2	3.7	B1/500		
BM	(30°-60°)	2637.0	24.4	B3/5000		
BH	(60°-80°)	2311.4	21.4	B3/2500		G2/5000
BVH	(80°-90°)	64.4	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°	726.7	726.7	726.7	726.7	726.7	726.7	726.7	726.7	726.7	726.7	726.7
2.5°	732.3	731.6	732.3	730.9	730.9	730.2	730.2	730.2	728.8	730.2	728.8
5°	747.6	746.9	747.6	746.2	746.2	744.8	744.8	744.8	743.4	744.8	744.1
7.5°	774.1	775.5	774.1	772.7	772.7	771.3	770.6	770.6	769.9	769.2	770.6
10°	811.0	812.4	810.3	808.9	808.2	807.5	806.1	805.4	805.4	802.6	803.3
12.5°	850.0	850.0	847.9	847.2	847.2	845.8	843.1	842.4	842.4	841.0	839.6
15°	884.9	884.9	883.5	880.7	881.4	879.3	877.2	875.8	875.8	874.4	873.0
17.5°	916.9	916.9	914.8	912.0	910.6	909.9	907.1	905.8	905.8	904.4	903.0
20°	949.0	950.3	946.9	944.1	941.3	938.5	935.7	934.3	932.2	932.9	932.2
22.5°	987.3	988.0	982.4	978.9	973.3	969.9	965.7	964.3	961.5	961.5	962.9
25°	1036.0	1035.3	1029.1	1022.8	1016.5	1009.6	1003.3	1001.9	999.1	998.4	999.1
27.5°	1100.1	1099.4	1091.8	1083.4	1075.1	1064.6	1056.9	1052.8	1050.7	1047.9	1049.3
30°	1178.9	1180.3	1171.2	1161.5	1151.0	1138.5	1128.7	1123.1	1119.0	1116.2	1117.6
32.5°	1339.1	1337.7	1323.8	1302.9	1280.6	1251.3	1227.6	1217.9	1210.2	1207.4	1209.5
35°	1500.1	1498.7	1493.1	1486.8	1481.3	1462.4	1445.0	1424.8	1408.1	1397.7	1400.4
37.5°	1576.0	1576.0	1571.8	1570.4	1570.4	1581.6	1595.5	1620.6	1640.1	1641.5	1635.2
40°	1694.5	1694.5	1687.5	1684.0	1681.9	1685.4	1694.5	1703.5	1713.3	1715.4	1708.4
42.5°	1833.8	1827.5	1822.7	1815.7	1815.0	1818.5	1828.2	1839.4	1849.1	1857.5	1842.9
45°	1984.3	1978.7	1973.9	1969.7	1972.5	1981.5	1994.8	2014.3	2028.2	2040.7	2028.9
47.5°	2152.2	2140.4	2145.2	2141.1	2148.0	2166.2	2189.8	2219.1	2233.7	2256.0	2237.2
50°	2361.2	2364.0	2361.2	2361.2	2369.6	2393.3	2428.1	2467.8	2492.9	2505.5	2494.3
52.5°	2672.0	2663.6	2644.8	2650.4	2661.5	2699.2	2744.4	2800.2	2832.2	2862.2	2827.4
55°	3012.0	3013.4	3010.6	3018.3	3039.9	3078.2	3135.3	3219.6	3260.0	3312.3	3270.5
57.5°	3293.5	3303.2	3319.9	3342.9	3389.6	3453.7	3565.9	3694.8	3802.1	3858.5	3793.0
60°	3384.7	3394.5	3434.9	3499.0	3586.8	3717.8	3899.6	4120.5	4313.5	4413.8	4328.1
62.5°	3209.2	3227.3	3287.2	3375.7	3520.6	3725.4	3995.8	4322.5	4620.1	4757.3	4653.5
63°	3152.0	3172.2	3233.5	3323.4	3471.1	3685.0	3977.0	4326.7	4641.7	4786.6	4674.4
65°	2898.4	2911.7	2976.5	3078.9	3243.3	3466.3	3790.9	4204.8	4563.6	4731.5	4612.4
67.5°	2499.2	2516.6	2575.8	2664.3	2823.9	3060.1	3379.2	3791.6	4144.9	4279.3	4177.6
70°	2004.5	2024.0	2072.8	2155.0	2280.4	2499.2	2772.3	3157.6	3423.1	3528.3	3419.6
72.5°	1408.8	1417.2	1452.7	1539.1	1633.1	1807.3	2024.0	2323.6	2578.6	2647.6	2543.1
75°	596.4	597.1	643.8	698.8	816.6	990.1	1178.9	1436.7	1665.9	1773.2	1640.8
77.5°	190.9	193.0	206.2	226.4	265.5	342.8	482.1	623.6	834.0	935.7	811.7
80°	159.6	162.3	167.9	172.1	174.9	179.1	195.1	217.4	273.8	318.4	257.1
82.5°	137.3	142.1	154.7	159.6	162.3	163.7	165.8	165.1	161.6	160.2	160.9
85°	104.5	116.4	130.3	141.4	142.8	143.5	147.7	149.1	138.0	126.8	138.0
87.5°	45.3	58.5	89.9	99.6	97.5	90.6	96.8	102.4	93.4	68.3	91.3
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°	726.7	726.7	726.7	726.7	726.7	726.7	726.7	726.7
2.5°	729.5	730.9	730.9	730.9	730.9	731.6	732.3	731.6
5°	744.8	746.2	745.5	746.2	746.2	746.9	747.6	746.9
7.5°	771.3	771.3	771.3	772.7	772.7	774.1	774.1	774.1
10°	804.0	803.3	803.3	804.7	806.1	806.8	808.2	807.5
12.5°	839.6	838.2	838.9	840.3	841.7	842.4	843.7	843.1
15°	871.6	870.9	870.9	873.0	873.7	874.4	877.2	877.2
17.5°	902.3	902.3	902.3	905.1	905.8	908.5	910.6	910.6
20°	932.9	932.9	932.9	935.7	937.8	942.0	946.2	945.5
22.5°	964.3	965.0	966.4	969.2	974.0	980.3	983.8	983.8
25°	1003.3	1006.1	1008.9	1013.1	1020.0	1028.4	1034.0	1036.0
27.5°	1053.5	1059.7	1066.7	1073.0	1080.6	1091.1	1098.8	1100.1
30°	1121.7	1130.8	1141.9	1150.3	1160.1	1171.9	1181.0	1185.8
32.5°	1218.6	1240.9	1255.5	1285.5	1303.6	1323.8	1340.5	1347.5
35°	1417.9	1440.2	1459.7	1479.9	1484.0	1491.0	1500.1	1502.2
37.5°	1615.0	1596.9	1579.5	1578.8	1573.9	1575.3	1578.1	1581.6
40°	1700.7	1695.2	1686.1	1689.6	1690.3	1690.3	1695.9	1696.6
42.5°	1838.7	1825.4	1815.0	1823.4	1824.8	1826.1	1831.7	1838.0
45°	2014.3	1994.1	1980.8	1975.9	1980.8	1979.4	1987.1	1988.5
47.5°	2214.9	2188.4	2158.5	2148.7	2145.9	2139.7	2152.9	2151.5
50°	2460.9	2418.4	2382.1	2368.2	2361.2	2357.8	2361.2	2361.2
52.5°	2772.3	2729.8	2680.3	2664.3	2658.7	2666.4	2655.3	2667.1
55°	3200.8	3131.8	3064.2	3042.6	3039.2	3035.7	3037.1	3041.9
57.5°	3682.9	3560.3	3469.7	3416.8	3382.7	3365.9	3347.8	3345.0
60°	4148.4	3925.4	3753.3	3636.3	3553.4	3490.6	3458.6	3447.4
62.5°	4372.7	4046.6	3779.1	3579.8	3456.5	3354.1	3297.6	3283.0
63°	4379.0	4031.3	3747.7	3537.3	3393.8	3301.8	3241.9	3226.6
65°	4262.6	3866.9	3534.5	3303.2	3151.3	3055.2	2981.3	2965.3
67.5°	3839.0	3455.1	3115.1	2880.3	2715.9	2638.5	2557.0	2554.9
70°	3150.6	2807.8	2521.5	2305.5	2168.2	2091.6	2008.7	2010.8
72.5°	2303.4	1998.9	1801.8	1633.1	1488.2	1415.8	1337.7	1345.4
75°	1386.5	1114.8	937.1	790.8	641.7	552.5	492.6	458.5
77.5°	592.9	405.5	291.2	231.3	195.1	180.5	173.5	171.4
80°	206.2	182.5	172.1	169.3	167.2	164.4	159.6	154.7
82.5°	167.2	167.2	161.6	160.9	154.7	149.8	137.3	131.0
85°	148.4	145.6	140.7	138.7	137.3	126.8	110.8	102.4
87.5°	98.2	91.3	87.1	89.2	86.4	77.3	47.4	37.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)