

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: P143940

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P143940
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33698)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: LDRL-5WQ-E03-E
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE WIDE
Light Source: (63) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9196.7 lumens
Efficiency: N/A
Efficacy: 122.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B4 - U0 - G2

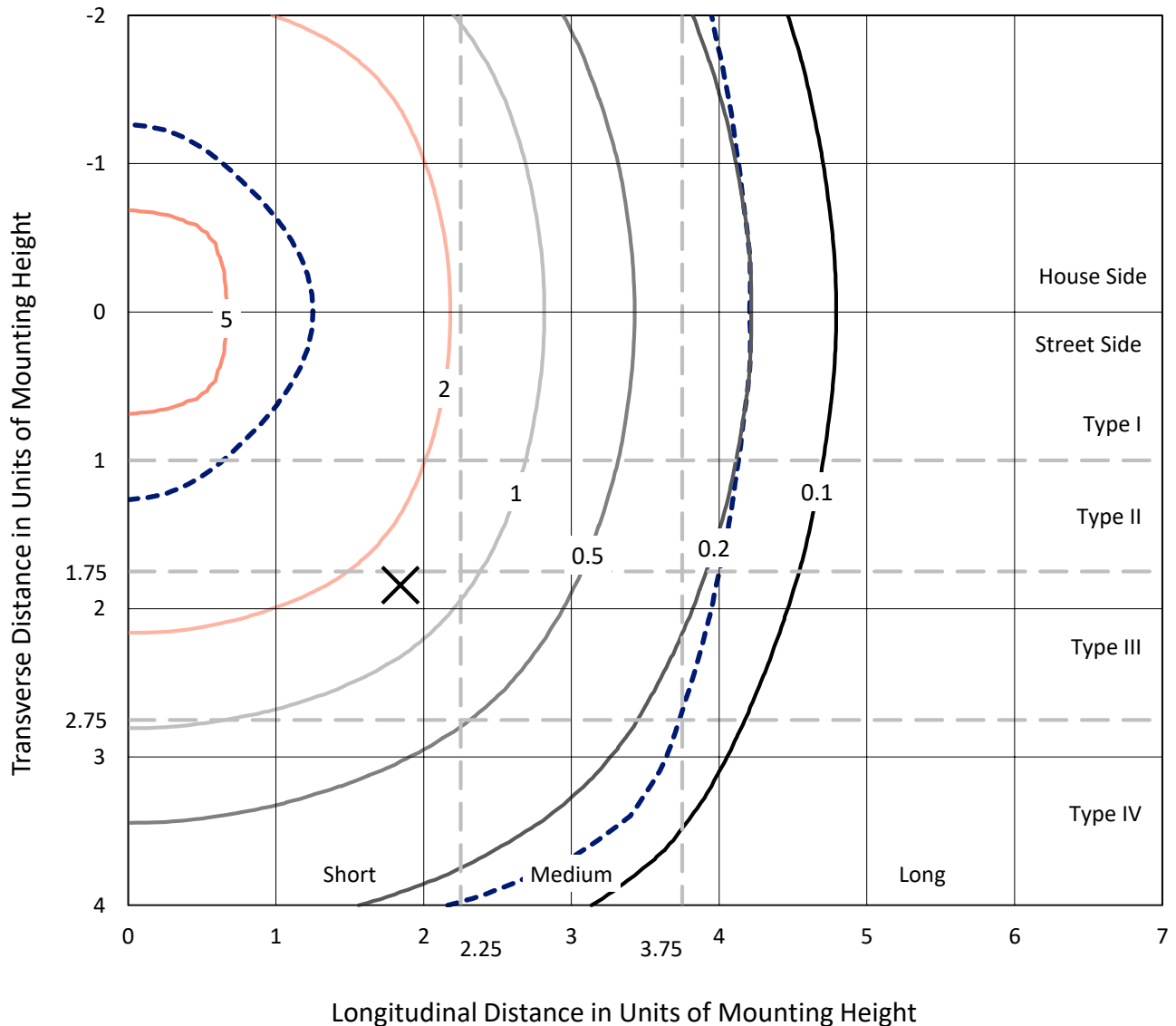
Input Watts (W): 75.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

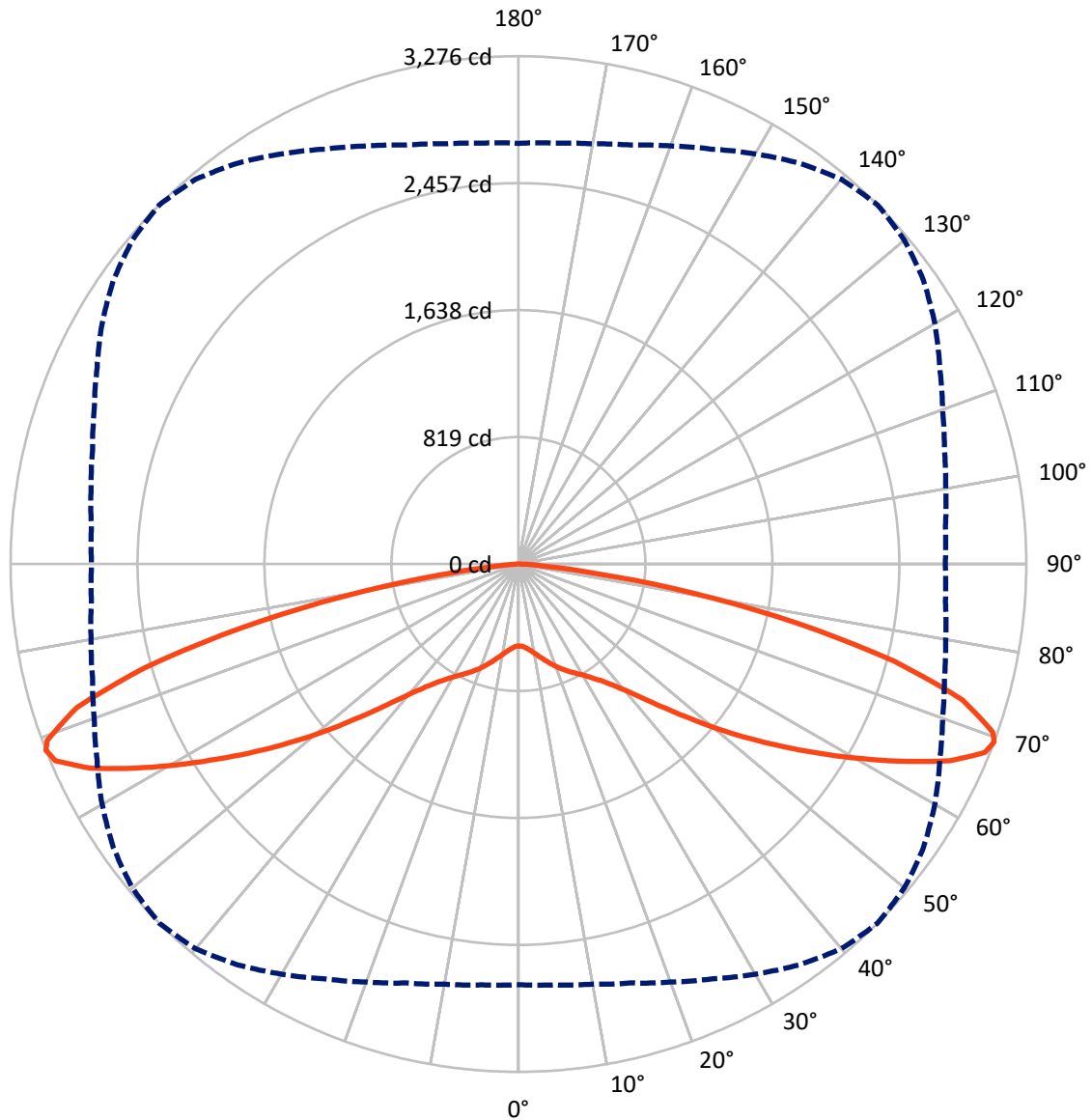
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.9 fc
 Type V - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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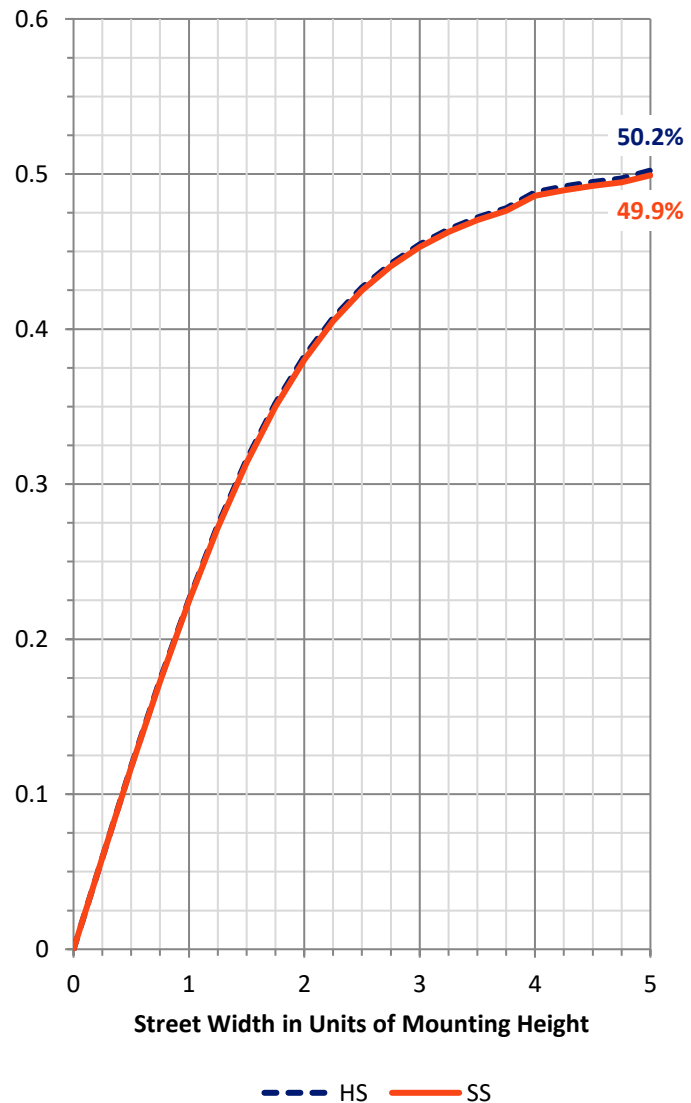
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4598.3	0.0	4598.3
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	4598.3	0.0	4598.3
	% Fixture	50.0	0.0	50.0
Total	Lumens	9196.7	0.0	9196.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.3	0.6
10°-20°	183.8	2.0
20°-30°	354.3	3.9
30°-40°	580.5	6.3
40°-50°	1009.4	11.0
50°-60°	1793.1	19.5
60°-70°	2783.8	30.3
70°-80°	2218.0	24.1
80°-90°	220.6	2.4
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°	9196.7	100.0
0°-180°	9196.7	100.0



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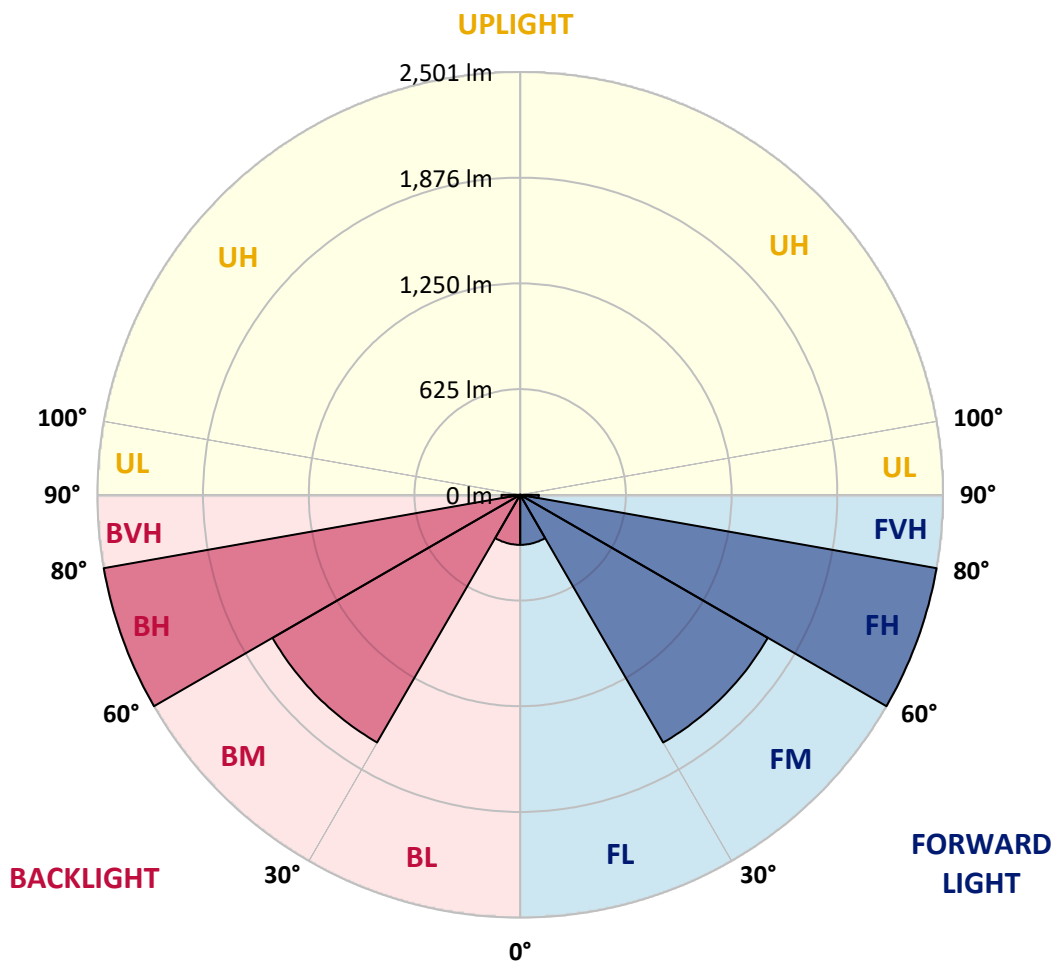
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	295.7	3.2			
FM	(30°-60°)	1691.5	18.4			
FH	(60°-80°)	2500.9	27.2			G2/5000
FVH	(80°-90°)	110.3	1.2			G2/225
BL	(0°-30°)	295.7	3.2	B1/500		
BM	(30°-60°)	1691.5	18.4	B2/2500		
BH	(60°-80°)	2500.9	27.2	B4/5000		G2/5000
BVH	(80°-90°)	110.3	1.2			G2/225
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°	528.6	528.6	528.6	528.6	528.6	528.6	528.6	528.6	528.6	528.6	528.6
2.5°	532.8	532.8	532.8	532.2	532.2	531.6	532.2	531.6	531.6	531.6	531.6
5°	546.6	545.4	545.4	544.8	546.0	546.0	544.8	545.4	544.8	545.4	545.4
7.5°	564.0	564.0	564.0	563.4	564.6	564.0	563.4	564.0	564.0	563.4	563.4
10°	585.6	586.2	585.6	585.6	587.4	586.8	587.4	587.4	588.0	587.4	587.4
12.5°	610.8	610.8	611.4	612.0	612.6	613.2	615.0	614.4	615.6	614.4	614.4
15°	640.2	641.4	640.2	640.2	642.0	643.2	643.8	643.8	645.0	644.4	643.2
17.5°	671.4	672.0	671.4	670.8	672.6	674.4	675.0	675.0	676.8	675.6	675.6
20°	703.2	703.8	702.6	702.0	704.4	704.4	705.6	706.2	708.0	708.6	706.8
22.5°	732.6	733.2	732.6	732.0	734.4	734.4	736.2	736.8	739.2	738.6	738.6
25°	761.4	761.4	760.8	760.8	763.2	763.8	765.6	766.8	769.2	769.2	769.2
27.5°	787.8	788.4	787.2	786.6	791.4	793.2	794.4	796.8	798.6	799.8	799.2
30°	817.8	817.8	817.2	819.0	822.0	824.4	826.8	830.4	834.0	832.8	832.8
32.5°	853.2	854.4	853.8	856.2	859.8	863.4	866.4	870.6	872.4	875.4	873.0
35°	900.6	903.0	901.8	904.2	907.2	909.6	916.2	920.4	923.4	925.2	924.0
37.5°	960.0	958.8	961.2	961.8	967.8	970.8	978.6	984.6	989.4	991.2	990.0
40°	1033.8	1032.0	1035.0	1038.0	1045.8	1048.8	1057.8	1066.8	1073.4	1075.8	1074.6
42.5°	1122.0	1124.4	1129.2	1133.4	1144.2	1152.6	1162.8	1176.0	1183.2	1186.2	1182.0
45°	1237.8	1233.6	1242.6	1253.4	1259.4	1278.0	1294.8	1308.6	1320.6	1325.4	1320.6
47.5°	1369.8	1369.2	1380.0	1393.2	1408.8	1426.2	1446.0	1464.0	1485.0	1486.2	1480.2
50°	1515.6	1527.6	1533.6	1546.8	1575.6	1597.2	1622.4	1649.4	1668.6	1674.6	1663.8
52.5°	1691.4	1700.4	1704.0	1726.2	1752.6	1779.0	1814.4	1846.8	1869.0	1871.4	1866.0
55°	1882.2	1889.4	1896.0	1923.0	1951.8	1975.2	2020.2	2052.0	2074.2	2082.6	2079.0
57.5°	2079.6	2086.2	2094.6	2124.0	2153.4	2186.4	2229.0	2266.2	2292.0	2307.6	2303.4
60°	2298.6	2298.6	2317.8	2347.2	2371.2	2410.2	2454.6	2497.8	2526.0	2550.6	2544.0
62.5°	2529.0	2535.6	2554.2	2578.2	2603.4	2639.4	2689.8	2741.4	2784.6	2803.2	2802.6
65°	2703.6	2715.6	2740.2	2767.8	2809.8	2852.4	2916.0	2980.2	3032.4	3059.4	3059.4
67.5°	2754.6	2762.4	2793.0	2835.0	2895.6	2963.4	3049.8	3139.2	3210.6	3246.0	3223.8
69°	2713.8	2725.2	2752.2	2797.8	2869.8	2952.6	3055.2	3156.6	3239.4	3276.0	3250.2
70°	2666.4	2679.0	2706.0	2751.0	2825.4	2913.6	3016.2	3125.4	3214.2	3245.4	3216.0
72.5°	2473.2	2488.8	2508.0	2547.0	2614.2	2697.0	2789.4	2885.4	2970.6	2995.2	2958.6
75°	2143.8	2146.8	2156.4	2185.2	2209.2	2268.0	2346.6	2422.8	2487.0	2501.4	2462.4
77.5°	1517.4	1501.2	1485.0	1509.6	1528.8	1604.4	1689.6	1752.0	1819.2	1839.6	1800.0
80°	665.4	659.4	682.2	714.6	799.2	849.6	933.0	1022.4	1079.4	1146.0	1074.6
82.5°	131.4	138.6	160.2	198.0	244.2	307.2	361.8	423.6	479.4	504.6	478.8
85°	53.4	58.2	66.0	73.8	79.2	88.8	104.4	129.6	142.8	144.6	137.4
87.5°	22.2	25.8	34.8	41.4	42.0	40.2	41.4	42.6	34.8	28.2	35.4
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°	528.6	528.6	528.6	528.6	528.6	528.6	528.6	528.6
2.5°	531.6	532.2	531.6	532.2	531.6	531.6	532.2	531.6
5°	544.8	545.4	544.8	544.2	543.6	544.2	544.2	544.2
7.5°	563.4	562.8	562.2	562.2	561.6	561.0	562.2	562.2
10°	586.2	585.6	584.4	584.4	583.8	583.8	583.8	583.8
12.5°	613.8	612.0	611.4	609.6	609.0	608.4	608.4	609.0
15°	642.6	640.8	640.2	637.2	637.2	636.6	636.6	636.6
17.5°	673.2	671.4	669.0	669.0	667.2	666.0	666.6	665.4
20°	704.4	702.0	700.8	700.2	697.8	697.8	697.8	697.2
22.5°	735.0	733.2	731.4	729.0	726.6	726.0	726.0	725.4
25°	766.2	763.2	759.6	757.2	754.8	753.0	753.0	753.0
27.5°	797.4	793.8	788.4	785.4	781.8	780.0	780.0	779.4
30°	830.4	826.2	821.4	817.2	812.4	810.6	810.0	808.8
32.5°	870.0	865.8	861.0	855.0	850.2	847.2	847.2	845.4
35°	920.4	915.6	912.0	904.2	898.2	893.4	894.0	895.2
37.5°	986.4	980.4	977.4	967.8	960.0	955.2	955.2	954.6
40°	1070.4	1064.4	1057.8	1048.8	1039.2	1032.6	1030.8	1030.8
42.5°	1177.2	1171.8	1162.8	1150.2	1138.8	1131.6	1125.6	1126.2
45°	1311.0	1304.4	1291.8	1276.2	1262.4	1252.2	1243.8	1243.8
47.5°	1473.6	1459.8	1442.4	1428.6	1405.2	1389.6	1383.6	1382.4
50°	1659.0	1633.2	1611.6	1591.8	1567.2	1551.0	1542.0	1539.6
52.5°	1853.4	1826.4	1799.4	1773.6	1743.6	1726.8	1712.4	1711.2
55°	2064.6	2030.4	1996.2	1971.0	1935.6	1918.2	1903.8	1895.4
57.5°	2280.0	2241.6	2217.0	2181.0	2143.8	2131.2	2117.4	2107.2
60°	2522.4	2480.4	2448.0	2410.2	2386.2	2359.2	2346.0	2338.2
62.5°	2770.2	2731.2	2689.8	2653.8	2620.2	2601.6	2583.6	2574.6
65°	3022.2	2958.0	2908.8	2859.0	2819.4	2785.8	2757.6	2754.0
67.5°	3177.0	3096.0	3013.8	2941.2	2883.0	2835.6	2806.8	2796.6
69°	3189.6	3101.4	2998.8	2911.8	2844.6	2799.0	2764.8	2754.0
70°	3154.8	3066.0	2958.0	2864.4	2794.8	2745.0	2716.8	2698.8
72.5°	2900.4	2822.4	2718.6	2626.2	2563.2	2505.0	2476.8	2469.6
75°	2392.8	2310.0	2214.6	2170.2	2126.4	2089.8	2070.6	2068.8
77.5°	1699.2	1614.6	1542.0	1483.8	1436.4	1413.0	1418.4	1398.6
80°	972.6	862.2	774.6	723.0	652.8	610.8	563.4	597.6
82.5°	418.2	337.8	257.4	209.4	159.6	126.6	104.4	97.2
85°	117.0	95.4	79.8	73.2	66.0	58.8	49.8	46.2
87.5°	39.6	37.8	33.6	33.6	30.6	25.8	18.0	16.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)