

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: P143930

Luminaire Tested: **LDRL-5WQ-E02-E**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P143930
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-E02-E
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE WIDE
Light Source: (42) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6131.1 lumens
Efficiency: N/A
Efficacy: 117.7 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G1

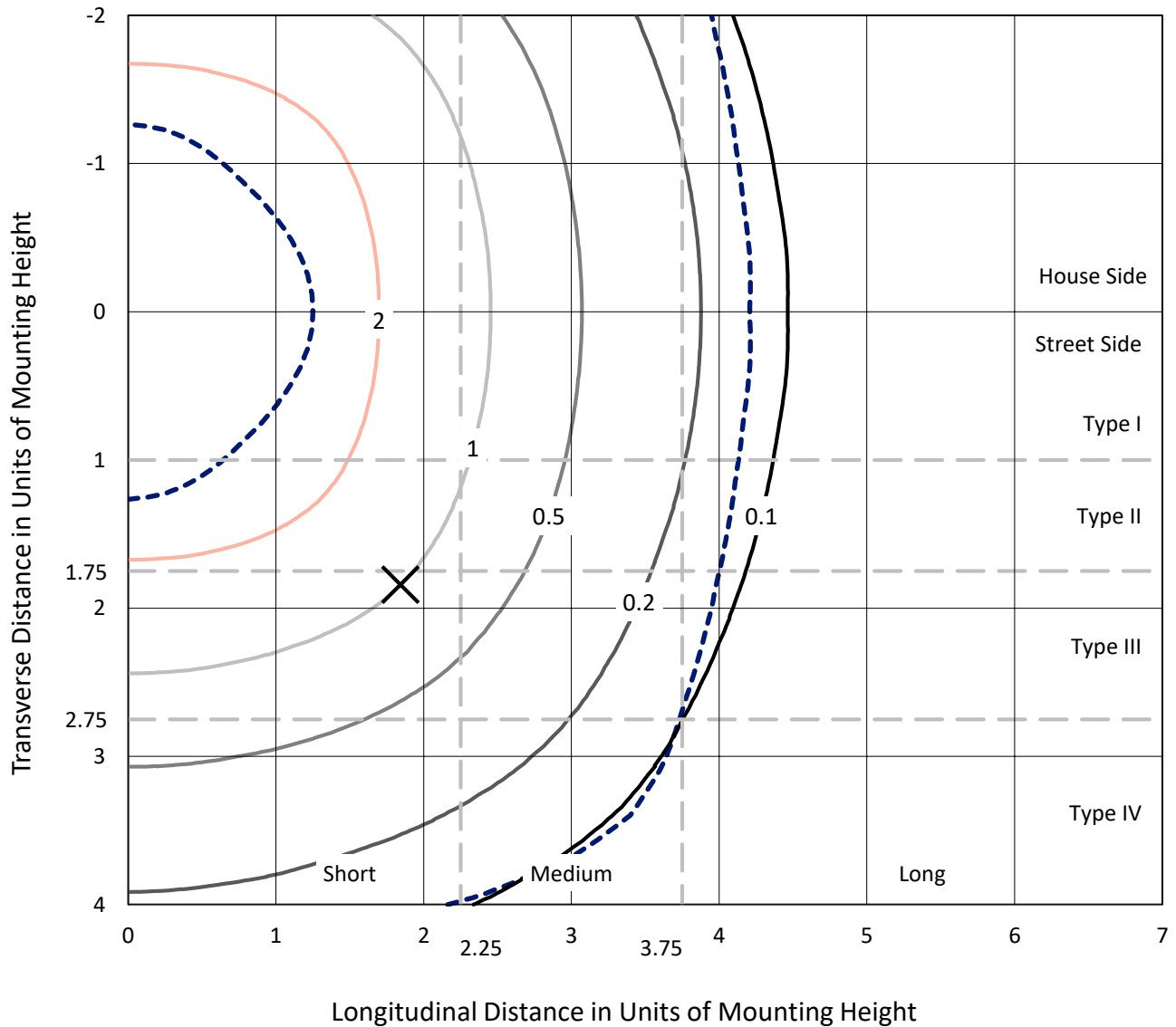
Input Watts (W): 52.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

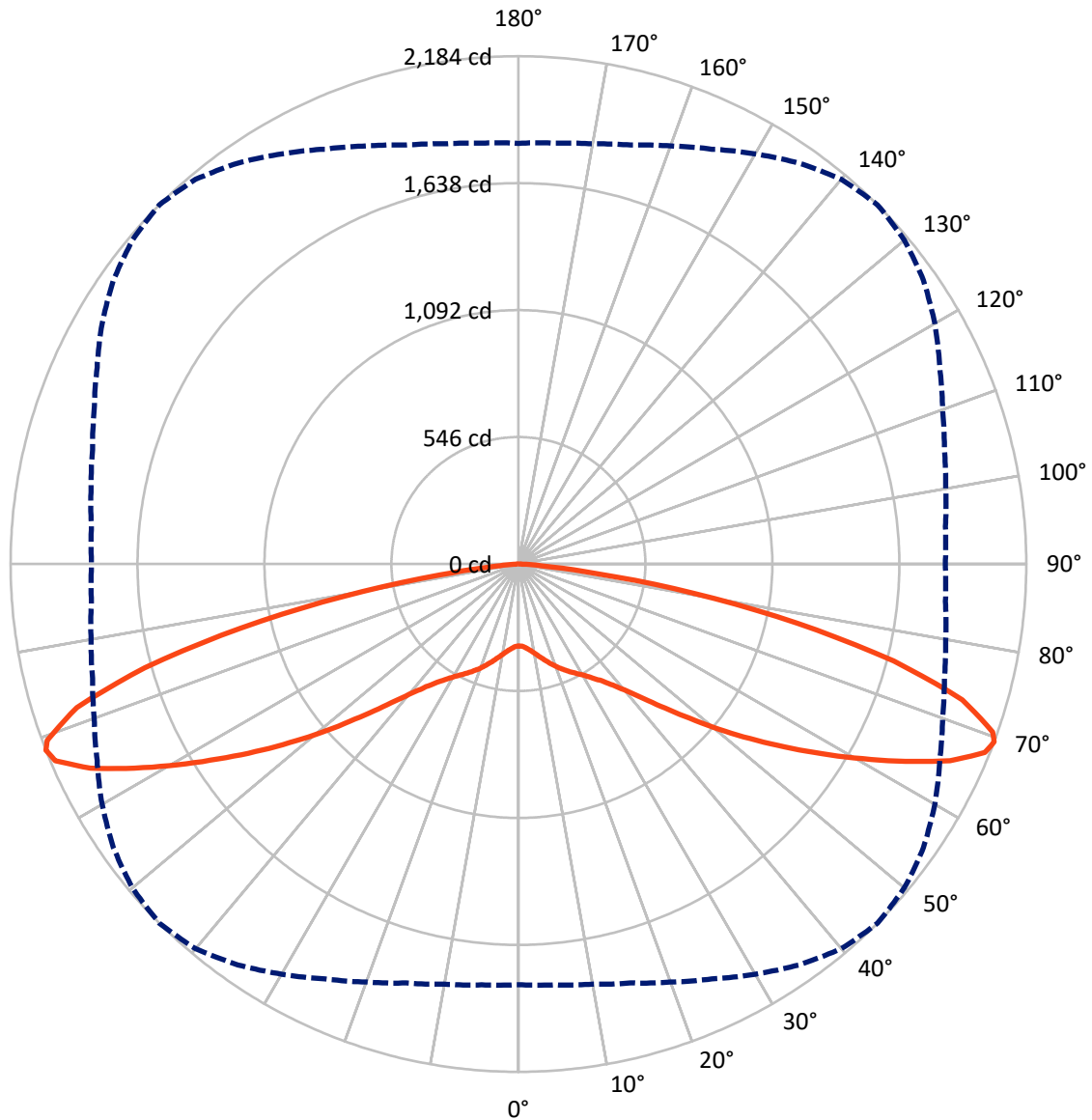
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.9 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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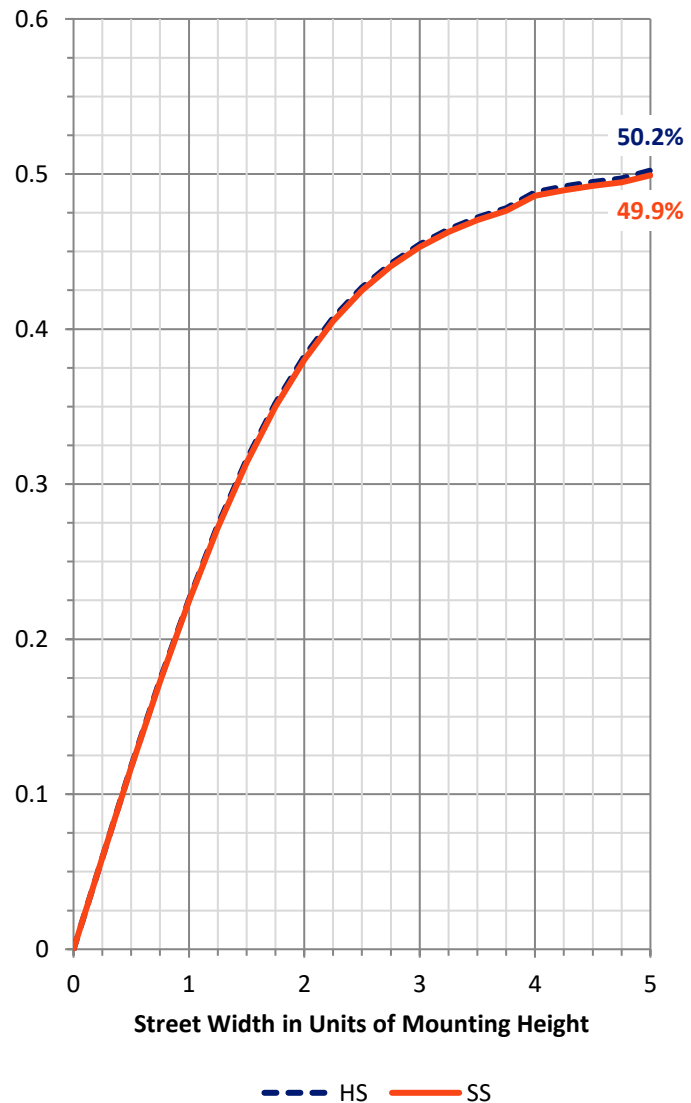
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3065.6	0.0	3065.6
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	3065.6	0.0	3065.6
	% Fixture	50.0	0.0	50.0
Total	Lumens	6131.1	0.0	6131.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.5	0.6
10°-20°	122.5	2.0
20°-30°	236.2	3.9
30°-40°	387.0	6.3
40°-50°	672.9	11.0
50°-60°	1195.4	19.5
60°-70°	1855.9	30.3
70°-80°	1478.7	24.1
80°-90°	147.0	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°	6131.1	100.0
0°-180°	6131.1	100.0



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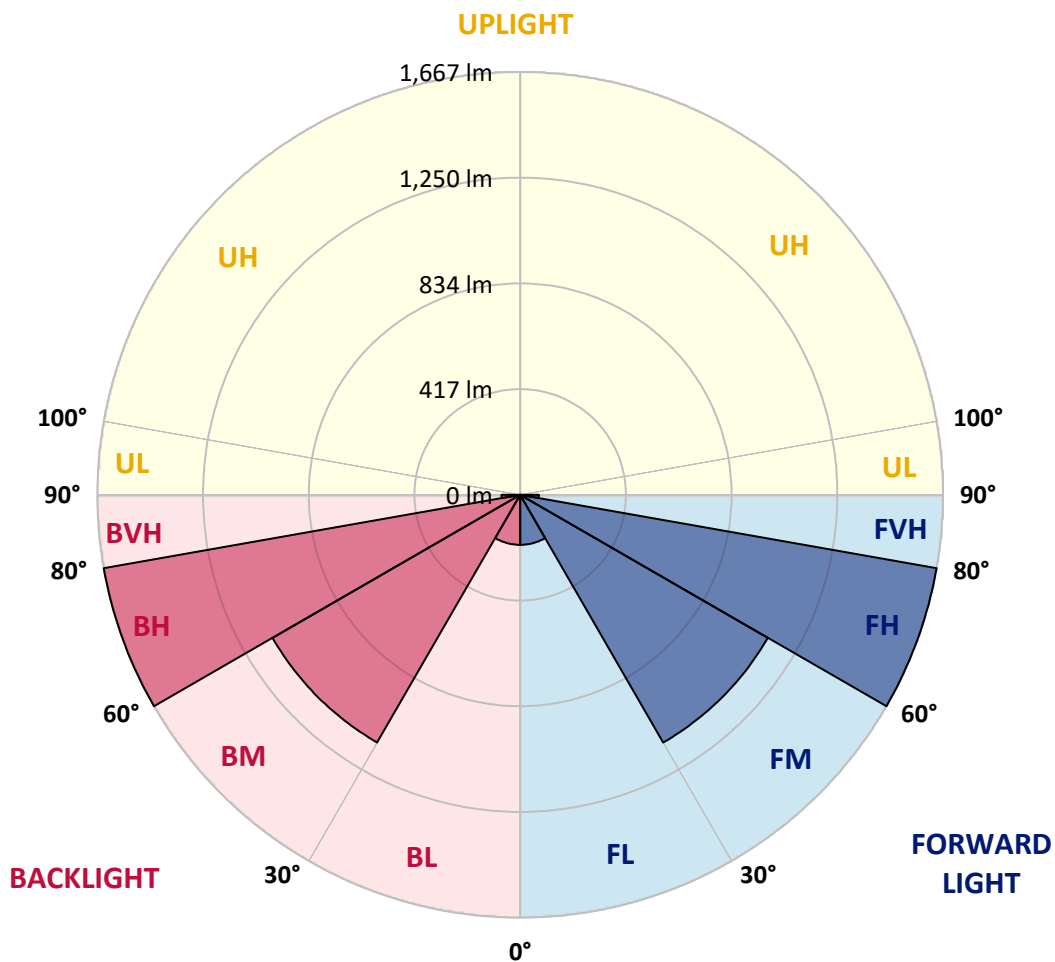
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	197.1	3.2			
FM	(30°-60°)	1127.7	18.4			
FH	(60°-80°)	1667.3	27.2			G1/1800
FVH	(80°-90°)	73.5	1.2			G1/100
BL	(0°-30°)	197.1	3.2	B1/500		
BM	(30°-60°)	1127.7	18.4	B2/2500		
BH	(60°-80°)	1667.3	27.2	B3/2500		G1/1800
BVH	(80°-90°)	73.5	1.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G1

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	352.4	352.4	352.4	352.4	352.4	352.4	352.4	352.4	352.4	352.4	352.4
2.5°	355.2	355.2	355.2	354.8	354.8	354.4	354.8	354.4	354.4	354.4	354.4
5°	364.4	363.6	363.6	363.2	364.0	364.0	363.2	363.6	363.2	363.6	363.6
7.5°	376.0	376.0	376.0	375.6	376.4	376.0	375.6	376.0	376.0	375.6	375.6
10°	390.4	390.8	390.4	390.4	391.6	391.2	391.6	391.6	392.0	391.6	391.6
12.5°	407.2	407.2	407.6	408.0	408.4	408.8	410.0	409.6	410.4	409.6	409.6
15°	426.8	427.6	426.8	426.8	428.0	428.8	429.2	429.2	430.0	429.6	428.8
17.5°	447.6	448.0	447.6	447.2	448.4	449.6	450.0	450.0	451.2	450.4	450.4
20°	468.8	469.2	468.4	468.0	469.6	469.6	470.4	470.8	472.0	472.4	471.2
22.5°	488.4	488.8	488.4	488.0	489.6	489.6	490.8	491.2	492.8	492.4	492.4
25°	507.6	507.6	507.2	507.2	508.8	509.2	510.4	511.2	512.8	512.8	512.8
27.5°	525.2	525.6	524.8	524.4	527.6	528.8	529.6	531.2	532.4	533.2	532.8
30°	545.2	545.2	544.8	546.0	548.0	549.6	551.2	553.6	556.0	555.2	555.2
32.5°	568.8	569.6	569.2	570.8	573.2	575.6	577.6	580.4	581.6	583.6	582.0
35°	600.4	602.0	601.2	602.8	604.8	606.4	610.8	613.6	615.6	616.8	616.0
37.5°	640.0	639.2	640.8	641.2	645.2	647.2	652.4	656.4	659.6	660.8	660.0
40°	689.2	688.0	690.0	692.0	697.2	699.2	705.2	711.2	715.6	717.2	716.4
42.5°	748.0	749.6	752.8	755.6	762.8	768.4	775.2	784.0	788.8	790.8	788.0
45°	825.2	822.4	828.4	835.6	839.6	852.0	863.2	872.4	880.4	883.6	880.4
47.5°	913.2	912.8	920.0	928.8	939.2	950.8	964.0	976.0	990.0	990.8	986.8
50°	1010.4	1018.4	1022.4	1031.2	1050.4	1064.8	1081.6	1099.6	1112.4	1116.4	1109.2
52.5°	1127.6	1133.6	1136.0	1150.8	1168.4	1186.0	1209.6	1231.2	1246.0	1247.6	1244.0
55°	1254.8	1259.6	1264.0	1282.0	1301.2	1316.8	1346.8	1368.0	1382.8	1388.4	1386.0
57.5°	1386.4	1390.8	1396.4	1416.0	1435.6	1457.6	1486.0	1510.8	1528.0	1538.4	1535.6
60°	1532.4	1532.4	1545.2	1564.8	1580.8	1606.8	1636.4	1665.2	1684.0	1700.4	1696.0
62.5°	1686.0	1690.4	1702.8	1718.8	1735.6	1759.6	1793.2	1827.6	1856.4	1868.8	1868.4
65°	1802.4	1810.4	1826.8	1845.2	1873.2	1901.6	1944.0	1986.8	2021.6	2039.6	2039.6
67.5°	1836.4	1841.6	1862.0	1890.0	1930.4	1975.6	2033.2	2092.8	2140.4	2164.0	2149.2
69°	1809.2	1816.8	1834.8	1865.2	1913.2	1968.4	2036.8	2104.4	2159.6	2184.0	2166.8
70°	1777.6	1786.0	1804.0	1834.0	1883.6	1942.4	2010.8	2083.6	2142.8	2163.6	2144.0
72.5°	1648.8	1659.2	1672.0	1698.0	1742.8	1798.0	1859.6	1923.6	1980.4	1996.8	1972.4
75°	1429.2	1431.2	1437.6	1456.8	1472.8	1512.0	1564.4	1615.2	1658.0	1667.6	1641.6
77.5°	1011.6	1000.8	990.0	1006.4	1019.2	1069.6	1126.4	1168.0	1212.8	1226.4	1200.0
80°	443.6	439.6	454.8	476.4	532.8	566.4	622.0	681.6	719.6	764.0	716.4
82.5°	87.6	92.4	106.8	132.0	162.8	204.8	241.2	282.4	319.6	336.4	319.2
85°	35.6	38.8	44.0	49.2	52.8	59.2	69.6	86.4	95.2	96.4	91.6
87.5°	14.8	17.2	23.2	27.6	28.0	26.8	27.6	28.4	23.2	18.8	23.6
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°	352.4	352.4	352.4	352.4	352.4	352.4	352.4	352.4
2.5°	354.4	354.8	354.4	354.8	354.4	354.4	354.8	354.4
5°	363.2	363.6	363.2	362.8	362.4	362.8	362.8	362.8
7.5°	375.6	375.2	374.8	374.8	374.4	374.0	374.8	374.8
10°	390.8	390.4	389.6	389.6	389.2	389.2	389.2	389.2
12.5°	409.2	408.0	407.6	406.4	406.0	405.6	405.6	406.0
15°	428.4	427.2	426.8	424.8	424.8	424.4	424.4	424.4
17.5°	448.8	447.6	446.0	446.0	444.8	444.0	444.4	443.6
20°	469.6	468.0	467.2	466.8	465.2	465.2	465.2	464.8
22.5°	490.0	488.8	487.6	486.0	484.4	484.0	484.0	483.6
25°	510.8	508.8	506.4	504.8	503.2	502.0	502.0	502.0
27.5°	531.6	529.2	525.6	523.6	521.2	520.0	520.0	519.6
30°	553.6	550.8	547.6	544.8	541.6	540.4	540.0	539.2
32.5°	580.0	577.2	574.0	570.0	566.8	564.8	564.8	563.6
35°	613.6	610.4	608.0	602.8	598.8	595.6	596.0	596.8
37.5°	657.6	653.6	651.6	645.2	640.0	636.8	636.8	636.4
40°	713.6	709.6	705.2	699.2	692.8	688.4	687.2	687.2
42.5°	784.8	781.2	775.2	766.8	759.2	754.4	750.4	750.8
45°	874.0	869.6	861.2	850.8	841.6	834.8	829.2	829.2
47.5°	982.4	973.2	961.6	952.4	936.8	926.4	922.4	921.6
50°	1106.0	1088.8	1074.4	1061.2	1044.8	1034.0	1028.0	1026.4
52.5°	1235.6	1217.6	1199.6	1182.4	1162.4	1151.2	1141.6	1140.8
55°	1376.4	1353.6	1330.8	1314.0	1290.4	1278.8	1269.2	1263.6
57.5°	1520.0	1494.4	1478.0	1454.0	1429.2	1420.8	1411.6	1404.8
60°	1681.6	1653.6	1632.0	1606.8	1590.8	1572.8	1564.0	1558.8
62.5°	1846.8	1820.8	1793.2	1769.2	1746.8	1734.4	1722.4	1716.4
65°	2014.8	1972.0	1939.2	1906.0	1879.6	1857.2	1838.4	1836.0
67.5°	2118.0	2064.0	2009.2	1960.8	1922.0	1890.4	1871.2	1864.4
69°	2126.4	2067.6	1999.2	1941.2	1896.4	1866.0	1843.2	1836.0
70°	2103.2	2044.0	1972.0	1909.6	1863.2	1830.0	1811.2	1799.2
72.5°	1933.6	1881.6	1812.4	1750.8	1708.8	1670.0	1651.2	1646.4
75°	1595.2	1540.0	1476.4	1446.8	1417.6	1393.2	1380.4	1379.2
77.5°	1132.8	1076.4	1028.0	989.2	957.6	942.0	945.6	932.4
80°	648.4	574.8	516.4	482.0	435.2	407.2	375.6	398.4
82.5°	278.8	225.2	171.6	139.6	106.4	84.4	69.6	64.8
85°	78.0	63.6	53.2	48.8	44.0	39.2	33.2	30.8
87.5°	26.4	25.2	22.4	22.4	20.4	17.2	12.0	10.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)