

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: P143630

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P143630
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-E02-E
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM
Light Source: (42) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6215.3 lumens
Efficiency: N/A
Efficacy: 119.3 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B3 - U0 - G1

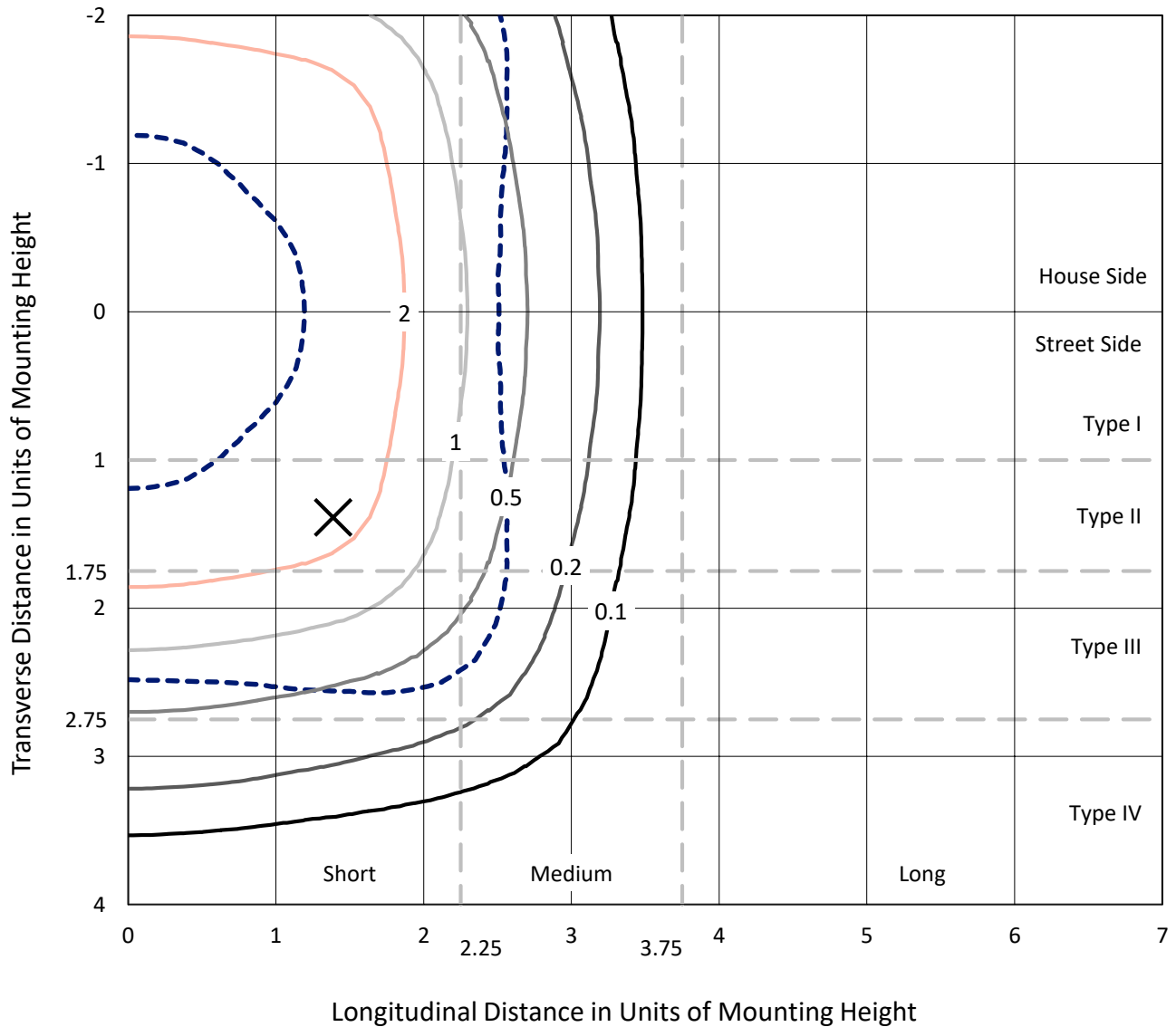
Input Watts (W): 52.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

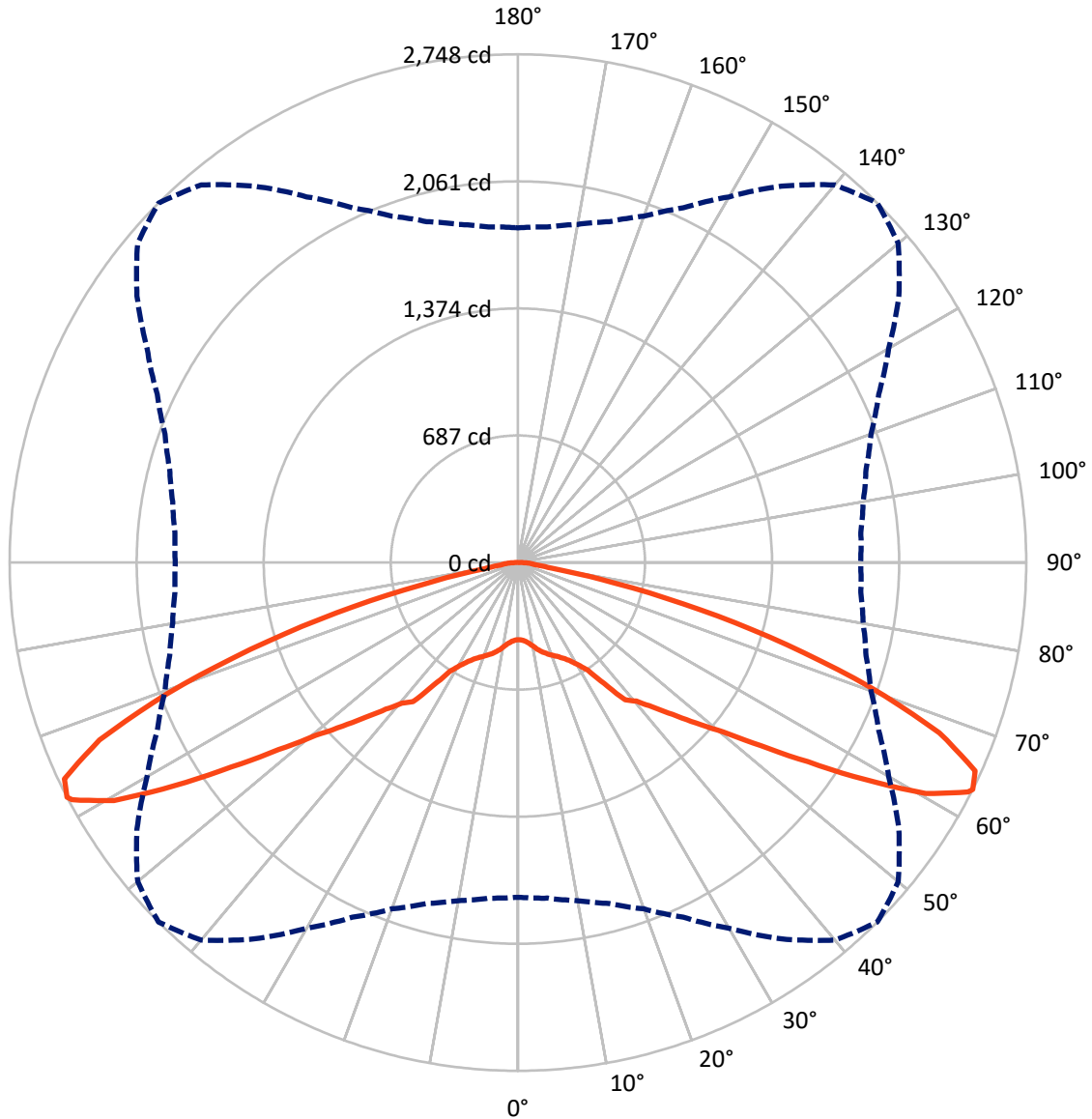
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.6 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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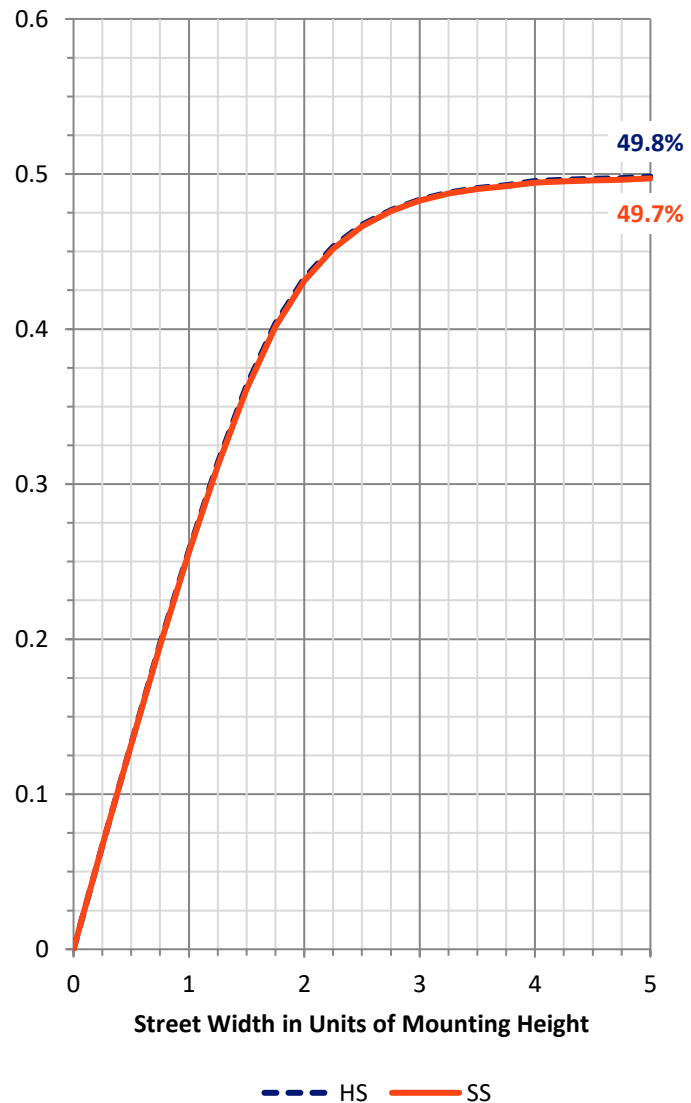
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3107.7	0.0	3107.7
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	3107.7	0.0	3107.7
	% Fixture	50.0	0.0	50.0
Total	Lumens	6215.3	0.0	6215.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.0	0.7
10°-20°	143.5	2.3
20°-30°	274.1	4.4
30°-40°	522.1	8.4
40°-50°	899.1	14.5
50°-60°	1606.6	25.8
60°-70°	1956.9	31.5
70°-80°	697.1	11.2
80°-90°	73.9	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°	6215.3	100.0
0°-180°	6215.3	100.0



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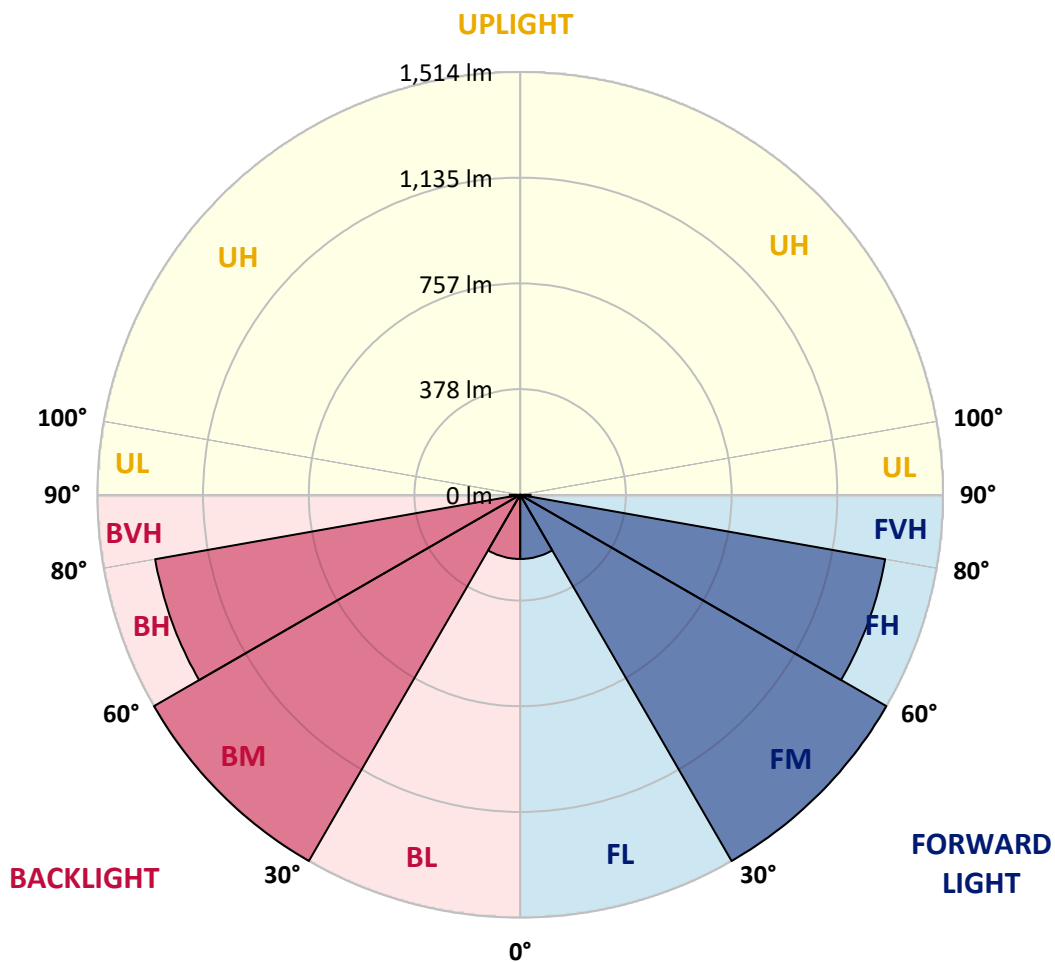
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	229.8	3.7			
FM	(30°-60°)	1513.9	24.4			
FH	(60°-80°)	1327.0	21.4			G1/1800
FVH	(80°-90°)	37.0	0.6			G1/100
BL	(0°-30°)	229.8	3.7	B1/500		
BM	(30°-60°)	1513.9	24.4	B2/2500		
BH	(60°-80°)	1327.0	21.4	B3/2500		G1/1800
BVH	(80°-90°)	37.0	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-G1

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	417.2	417.2	417.2	417.2	417.2	417.2	417.2	417.2	417.2	417.2	417.2
2.5°	420.4	420.0	420.4	419.6	419.6	419.2	419.2	419.2	418.4	419.2	418.4
5°	429.2	428.8	429.2	428.4	428.4	427.6	427.6	427.6	426.8	427.6	427.2
7.5°	444.4	445.2	444.4	443.6	443.6	442.8	442.4	442.4	442.0	441.6	442.4
10°	465.6	466.4	465.2	464.4	464.0	463.6	462.8	462.4	462.4	460.8	461.2
12.5°	488.0	488.0	486.8	486.4	486.4	485.6	484.0	483.6	483.6	482.8	482.0
15°	508.0	508.0	507.2	505.6	506.0	504.8	503.6	502.8	502.8	502.0	501.2
17.5°	526.4	526.4	525.2	523.6	522.8	522.4	520.8	520.0	520.0	519.2	518.4
20°	544.8	545.6	543.6	542.0	540.4	538.8	537.2	536.4	535.2	535.6	535.2
22.5°	566.8	567.2	564.0	562.0	558.8	556.8	554.4	553.6	552.0	552.0	552.8
25°	594.8	594.4	590.8	587.2	583.6	579.6	576.0	575.2	573.6	573.2	573.6
27.5°	631.6	631.2	626.8	622.0	617.2	611.2	606.8	604.4	603.2	601.6	602.4
30°	676.8	677.6	672.4	666.8	660.8	653.6	648.0	644.8	642.4	640.8	641.6
32.5°	768.8	768.0	760.0	748.0	735.2	718.4	704.8	699.2	694.8	693.2	694.4
35°	861.2	860.4	857.2	853.6	850.4	839.6	829.6	818.0	808.4	802.4	804.0
37.5°	904.8	904.8	902.4	901.6	901.6	908.0	916.0	930.4	941.6	942.4	938.8
40°	972.8	972.8	968.8	966.8	965.6	967.6	972.8	978.0	983.6	984.8	980.8
42.5°	1052.8	1049.2	1046.4	1042.4	1042.0	1044.0	1049.6	1056.0	1061.6	1066.4	1058.0
45°	1139.2	1136.0	1133.2	1130.8	1132.4	1137.6	1145.2	1156.4	1164.4	1171.6	1164.8
47.5°	1235.6	1228.8	1231.6	1229.2	1233.2	1243.6	1257.2	1274.0	1282.4	1295.2	1284.4
50°	1355.6	1357.2	1355.6	1355.6	1360.4	1374.0	1394.0	1416.8	1431.2	1438.4	1432.0
52.5°	1534.0	1529.2	1518.4	1521.6	1528.0	1549.6	1575.6	1607.6	1626.0	1643.2	1623.2
55°	1729.2	1730.0	1728.4	1732.8	1745.2	1767.2	1800.0	1848.4	1871.6	1901.6	1877.6
57.5°	1890.8	1896.4	1906.0	1919.2	1946.0	1982.8	2047.2	2121.2	2182.8	2215.2	2177.6
60°	1943.2	1948.8	1972.0	2008.8	2059.2	2134.4	2238.8	2365.6	2476.4	2534.0	2484.8
62.5°	1842.4	1852.8	1887.2	1938.0	2021.2	2138.8	2294.0	2481.6	2652.4	2731.2	2671.6
63°	1809.6	1821.2	1856.4	1908.0	1992.8	2115.6	2283.2	2484.0	2664.8	2748.0	2683.6
65°	1664.0	1671.6	1708.8	1767.6	1862.0	1990.0	2176.4	2414.0	2620.0	2716.4	2648.0
67.5°	1434.8	1444.8	1478.8	1529.6	1621.2	1756.8	1940.0	2176.8	2379.6	2456.8	2398.4
70°	1150.8	1162.0	1190.0	1237.2	1309.2	1434.8	1591.6	1812.8	1965.2	2025.6	1963.2
72.5°	808.8	813.6	834.0	883.6	937.6	1037.6	1162.0	1334.0	1480.4	1520.0	1460.0
75°	342.4	342.8	369.6	401.2	468.8	568.4	676.8	824.8	956.4	1018.0	942.0
77.5°	109.6	110.8	118.4	130.0	152.4	196.8	276.8	358.0	478.8	537.2	466.0
80°	91.6	93.2	96.4	98.8	100.4	102.8	112.0	124.8	157.2	182.8	147.6
82.5°	78.8	81.6	88.8	91.6	93.2	94.0	95.2	94.8	92.8	92.0	92.4
85°	60.0	66.8	74.8	81.2	82.0	82.4	84.8	85.6	79.2	72.8	79.2
87.5°	26.0	33.6	51.6	57.2	56.0	52.0	55.6	58.8	53.6	39.2	52.4
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°	417.2	417.2	417.2	417.2	417.2	417.2	417.2	417.2
2.5°	418.8	419.6	419.6	419.6	419.6	420.0	420.4	420.0
5°	427.6	428.4	428.0	428.4	428.4	428.8	429.2	428.8
7.5°	442.8	442.8	442.8	443.6	443.6	444.4	444.4	444.4
10°	461.6	461.2	461.2	462.0	462.8	463.2	464.0	463.6
12.5°	482.0	481.2	481.6	482.4	483.2	483.6	484.4	484.0
15°	500.4	500.0	500.0	501.2	501.6	502.0	503.6	503.6
17.5°	518.0	518.0	518.0	519.6	520.0	521.6	522.8	522.8
20°	535.6	535.6	535.6	537.2	538.4	540.8	543.2	542.8
22.5°	553.6	554.0	554.8	556.4	559.2	562.8	564.8	564.8
25°	576.0	577.6	579.2	581.6	585.6	590.4	593.6	594.8
27.5°	604.8	608.4	612.4	616.0	620.4	626.4	630.8	631.6
30°	644.0	649.2	655.6	660.4	666.0	672.8	678.0	680.8
32.5°	699.6	712.4	720.8	738.0	748.4	760.0	769.6	773.6
35°	814.0	826.8	838.0	849.6	852.0	856.0	861.2	862.4
37.5°	927.2	916.8	906.8	906.4	903.6	904.4	906.0	908.0
40°	976.4	973.2	968.0	970.0	970.4	970.4	973.6	974.0
42.5°	1055.6	1048.0	1042.0	1046.8	1047.6	1048.4	1051.6	1055.2
45°	1156.4	1144.8	1137.2	1134.4	1137.2	1136.4	1140.8	1141.6
47.5°	1271.6	1256.4	1239.2	1233.6	1232.0	1228.4	1236.0	1235.2
50°	1412.8	1388.4	1367.6	1359.6	1355.6	1353.6	1355.6	1355.6
52.5°	1591.6	1567.2	1538.8	1529.6	1526.4	1530.8	1524.4	1531.2
55°	1837.6	1798.0	1759.2	1746.8	1744.8	1742.8	1743.6	1746.4
57.5°	2114.4	2044.0	1992.0	1961.6	1942.0	1932.4	1922.0	1920.4
60°	2381.6	2253.6	2154.8	2087.6	2040.0	2004.0	1985.6	1979.2
62.5°	2510.4	2323.2	2169.6	2055.2	1984.4	1925.6	1893.2	1884.8
63°	2514.0	2314.4	2151.6	2030.8	1948.4	1895.6	1861.2	1852.4
65°	2447.2	2220.0	2029.2	1896.4	1809.2	1754.0	1711.6	1702.4
67.5°	2204.0	1983.6	1788.4	1653.6	1559.2	1514.8	1468.0	1466.8
70°	1808.8	1612.0	1447.6	1323.6	1244.8	1200.8	1153.2	1154.4
72.5°	1322.4	1147.6	1034.4	937.6	854.4	812.8	768.0	772.4
75°	796.0	640.0	538.0	454.0	368.4	317.2	282.8	263.2
77.5°	340.4	232.8	167.2	132.8	112.0	103.6	99.6	98.4
80°	118.4	104.8	98.8	97.2	96.0	94.4	91.6	88.8
82.5°	96.0	96.0	92.8	92.4	88.8	86.0	78.8	75.2
85°	85.2	83.6	80.8	79.6	78.8	72.8	63.6	58.8
87.5°	56.4	52.4	50.0	51.2	49.6	44.4	27.2	21.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)