

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: P144249

Luminaire Tested: **LDRL-5XQ-E04-E-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P144249
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33699)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: LDRL-5XQ-E04-E-7030
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE EXTRA WIDE
Light Source: (84) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11296.7 lumens
Efficiency: N/A
Efficacy: 116.2 lumens/watt
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
IES Classification: Type V - Short - Non-Cutoff
BUG Rating: B4 - U0 - G3

Input Watts (W): 97.2
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

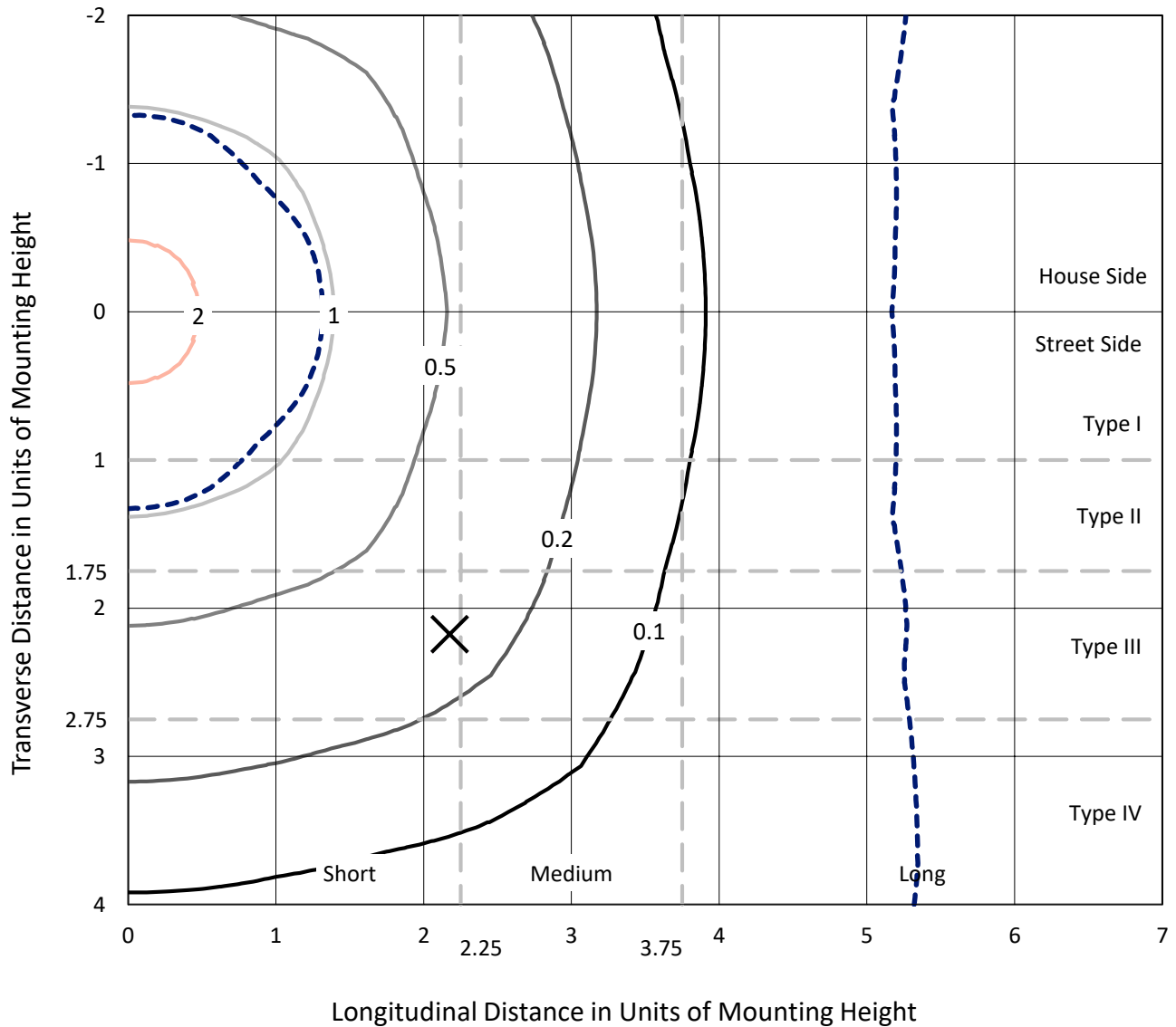


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

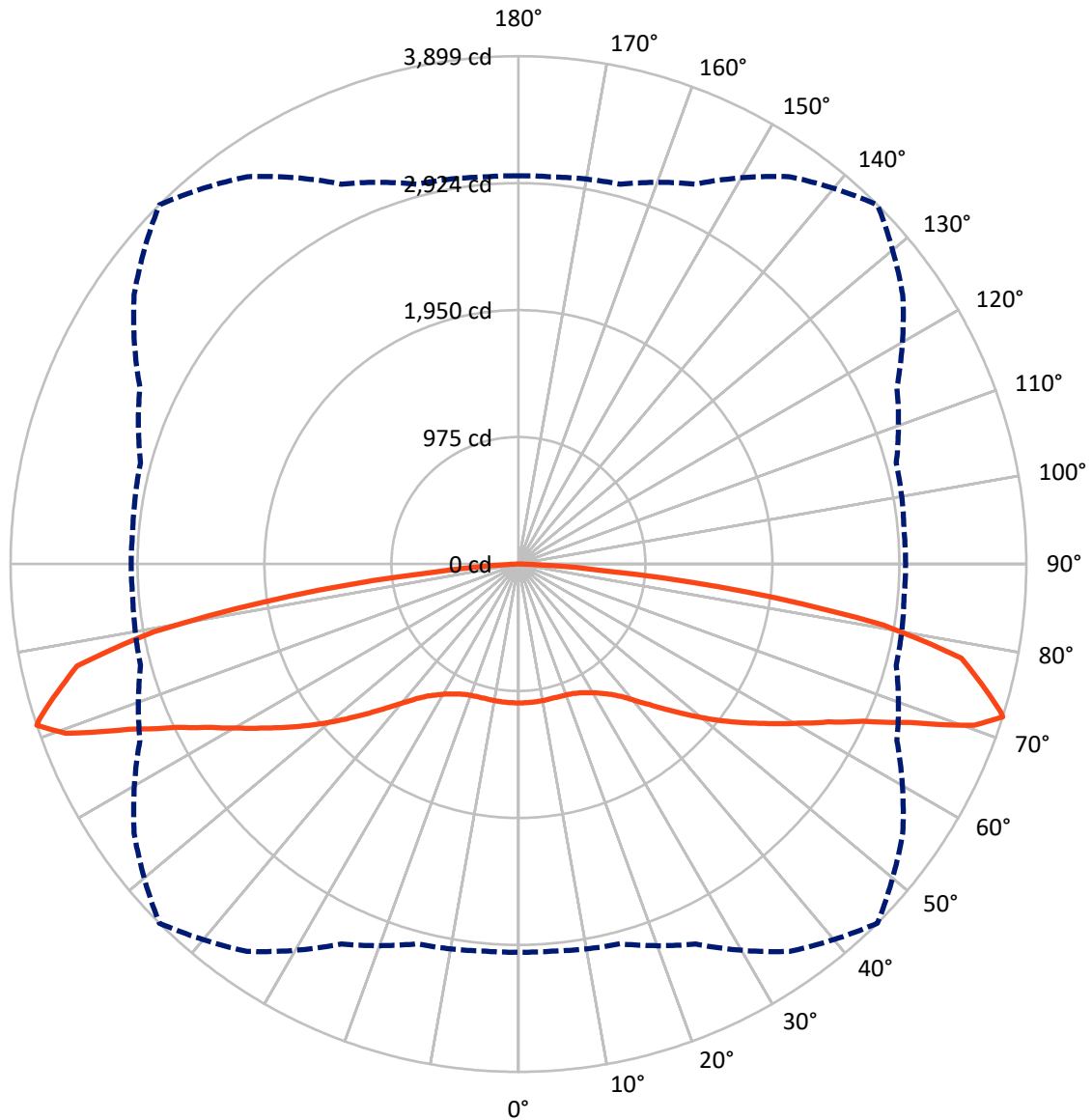


Based on 20 foot mounting height. Maximum calculated value = 2.7 fc
 Type V - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 72-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5648.4	0.0	5648.4
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	5648.4	0.0	5648.4
	% Fixture	50.0	0.0	50.0
Total	Lumens	11296.7	0.0	11296.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.8	0.9
10°-20°	302.5	2.7
20°-30°	508.1	4.5
30°-40°	773.3	6.8
40°-50°	1222.4	10.8
50°-60°	1867.1	16.5
60°-70°	2735.3	24.2
70°-80°	3107.5	27.5
80°-90°	678.8	6.0
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°	11296.7	100.0
0°-180°	11296.7	100.0



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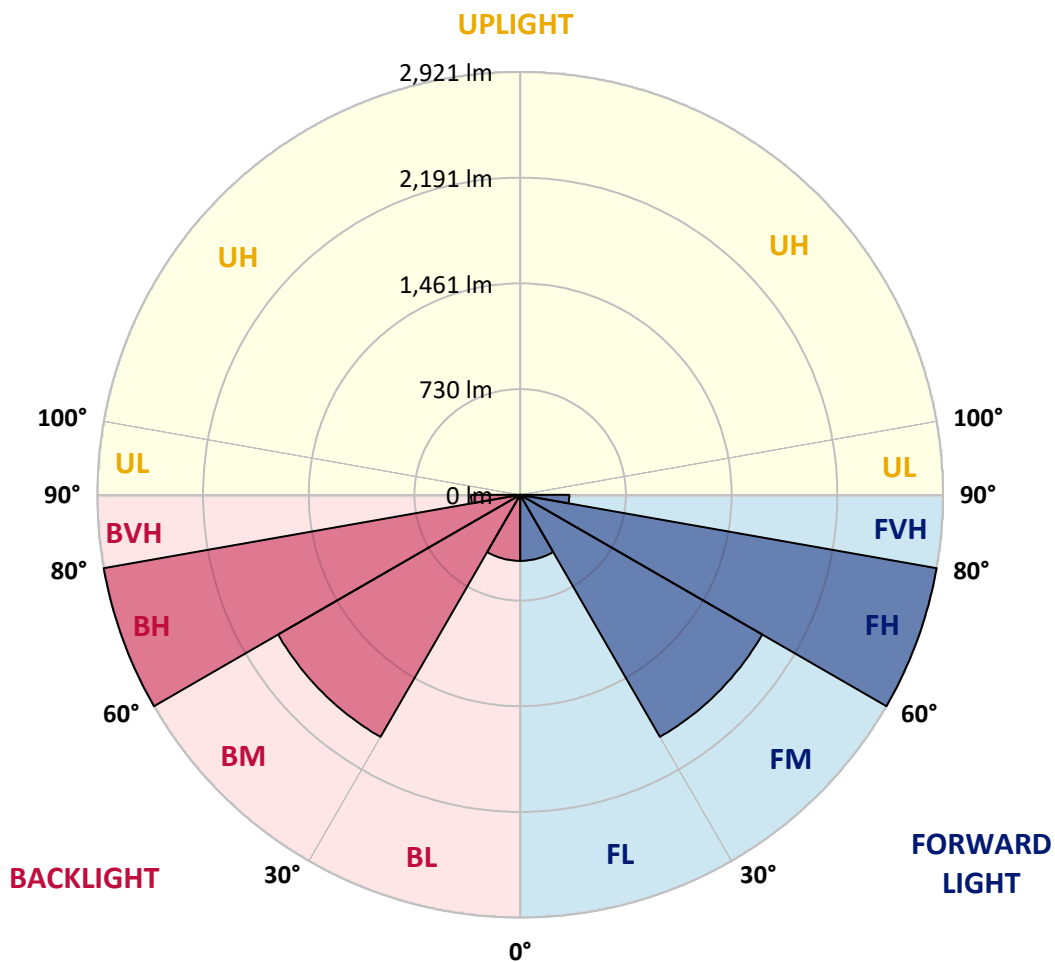
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	456.2	4.0			
FM	(30°-60°)	1931.4	17.1			
FH	(60°-80°)	2921.4	25.9			G2/5000
FVH	(80°-90°)	339.4	3.0			G3/500
BL	(0°-30°)	456.2	4.0	B1/500		
BM	(30°-60°)	1931.4	17.1	B2/2500		
BH	(60°-80°)	2921.4	25.9	B4/5000		G2/5000
BVH	(80°-90°)	339.4	3.0			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G3

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1066.8	1066.8	1066.8	1066.8	1066.8	1066.8	1066.8	1066.8	1066.8	1066.8	1066.8
2.5°	1069.0	1068.6	1067.9	1067.2	1066.8	1066.4	1066.4	1066.4	1066.2	1066.1	1066.2
5°	1069.0	1068.6	1068.1	1067.5	1067.0	1066.4	1066.4	1066.4	1066.2	1066.1	1066.4
7.5°	1067.5	1067.9	1067.4	1066.8	1066.6	1066.4	1066.2	1066.0	1065.7	1065.4	1065.5
10°	1067.8	1069.4	1068.2	1067.2	1066.8	1066.4	1065.7	1064.9	1064.8	1064.6	1064.2
12.5°	1068.6	1070.0	1068.8	1067.5	1067.0	1066.4	1065.7	1064.9	1064.4	1063.8	1063.3
15°	1070.8	1071.9	1070.8	1069.7	1068.6	1067.5	1066.8	1066.0	1065.0	1063.9	1063.3
17.5°	1072.2	1074.1	1072.8	1071.6	1070.3	1069.0	1068.3	1067.6	1066.8	1066.1	1065.2
20°	1074.8	1076.6	1075.6	1074.4	1073.8	1073.0	1072.5	1071.9	1071.4	1070.8	1069.5
22.5°	1079.6	1081.0	1080.7	1080.4	1080.5	1080.7	1080.9	1081.0	1080.7	1080.3	1079.0
25°	1089.4	1089.4	1090.2	1090.9	1092.0	1093.1	1094.0	1095.0	1095.5	1096.0	1094.4
27.5°	1106.6	1108.1	1108.6	1109.2	1111.0	1112.8	1114.8	1116.8	1117.9	1119.0	1117.4
30°	1128.9	1128.9	1130.2	1131.4	1134.6	1137.7	1140.2	1142.8	1144.8	1146.8	1145.5
32.5°	1157.4	1159.2	1161.0	1162.9	1166.7	1170.6	1174.9	1179.3	1181.9	1184.4	1182.4
35°	1200.8	1203.0	1204.9	1206.8	1210.8	1214.8	1219.7	1224.6	1226.8	1229.0	1227.7
37.5°	1262.2	1262.2	1264.8	1267.4	1269.9	1272.4	1279.0	1285.6	1288.4	1291.1	1288.9
40°	1345.2	1345.6	1346.1	1346.6	1349.0	1351.4	1359.4	1367.4	1372.2	1377.0	1372.4
42.5°	1440.5	1444.6	1444.4	1444.2	1445.8	1447.4	1455.2	1462.8	1469.6	1476.4	1473.6
45°	1553.1	1552.4	1550.9	1549.4	1554.4	1559.3	1570.2	1581.2	1587.2	1593.2	1587.6
47.5°	1666.6	1665.6	1663.6	1661.6	1666.5	1671.4	1687.9	1704.3	1712.9	1721.5	1712.4
50°	1779.9	1784.4	1781.8	1779.2	1786.5	1793.8	1814.6	1835.5	1848.1	1860.6	1850.0
52.5°	1905.2	1908.5	1905.6	1902.7	1912.8	1922.8	1947.5	1972.1	1988.9	2005.8	1991.5
55°	2035.0	2031.0	2032.6	2034.2	2043.7	2053.2	2083.5	2113.9	2134.0	2154.0	2138.0
57.5°	2156.2	2157.7	2156.0	2154.4	2169.4	2184.4	2222.6	2260.8	2285.9	2311.1	2291.0
60°	2280.4	2280.8	2277.2	2273.6	2289.8	2306.0	2360.9	2415.6	2448.3	2481.0	2453.4
62.5°	2419.3	2418.9	2412.5	2406.1	2425.3	2444.5	2512.4	2580.4	2625.3	2670.2	2636.6
65°	2589.5	2585.2	2581.5	2577.9	2600.0	2622.0	2706.4	2790.9	2851.5	2912.1	2868.8
67.5°	2840.5	2837.2	2829.6	2821.9	2846.6	2871.2	2979.4	3087.5	3165.9	3244.2	3187.0
70°	3116.8	3110.5	3115.8	3121.1	3178.1	3235.1	3380.1	3525.2	3618.0	3710.8	3614.7
72°	2980.4	2983.0	3000.7	3018.4	3118.4	3218.2	3424.3	3630.4	3764.6	3899.0	3750.4
72.5°	2933.0	2935.2	2955.2	2975.4	3070.7	3166.0	3378.5	3590.9	3729.9	3869.0	3716.2
75°	2731.3	2737.1	2760.3	2783.5	2880.2	2976.8	3191.1	3405.4	3538.5	3671.6	3518.8
77.5°	2402.2	2420.4	2444.0	2467.5	2582.6	2697.6	2939.9	3182.2	3329.2	3476.2	3302.7
80°	1833.2	1826.7	1867.2	1907.8	2017.8	2127.8	2315.2	2502.6	2671.9	2841.2	2646.1
82.5°	712.4	728.2	812.2	896.2	1011.4	1126.8	1294.6	1462.4	1615.0	1767.6	1605.1
85°	73.4	83.6	113.8	144.0	206.8	269.6	371.9	474.2	574.5	674.8	565.9
87.5°	29.6	32.5	41.8	51.1	53.5	55.9	67.6	79.3	78.7	78.2	77.1
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°	1066.8	1066.8	1066.8	1066.8	1066.8	1066.8	1066.8	1066.8
2.5°	1066.4	1066.8	1067.2	1067.1	1067.2	1067.7	1068.2	1067.5
5°	1066.8	1067.0	1067.2	1067.1	1067.2	1067.7	1068.2	1067.5
7.5°	1065.7	1065.7	1065.7	1066.2	1066.8	1067.0	1067.2	1066.8
10°	1063.8	1064.1	1064.2	1064.8	1065.4	1065.9	1066.4	1066.8
12.5°	1062.8	1063.0	1063.2	1063.7	1064.2	1064.8	1065.3	1066.1
15°	1062.8	1063.0	1063.2	1063.5	1063.8	1064.6	1065.4	1066.1
17.5°	1064.2	1063.9	1063.5	1063.9	1064.2	1065.2	1066.0	1066.8
20°	1068.2	1067.7	1067.2	1067.2	1067.2	1068.1	1069.0	1069.0
22.5°	1077.8	1075.9	1074.1	1073.8	1073.4	1073.6	1073.7	1074.1
25°	1092.7	1089.8	1086.9	1086.0	1085.0	1084.7	1084.4	1085.1
27.5°	1115.8	1112.5	1109.2	1107.2	1105.2	1104.1	1103.0	1103.3
30°	1144.2	1140.4	1136.6	1133.3	1130.0	1128.5	1127.1	1127.4
32.5°	1180.4	1175.9	1171.3	1166.9	1162.5	1160.5	1158.5	1158.9
35°	1226.4	1221.2	1215.8	1212.2	1208.5	1205.4	1202.4	1204.9
37.5°	1286.7	1281.8	1276.8	1274.5	1272.2	1269.4	1266.6	1267.0
40°	1367.8	1362.7	1357.6	1355.6	1353.6	1350.1	1346.6	1347.4
42.5°	1470.9	1463.2	1455.5	1451.9	1448.2	1446.6	1444.9	1446.0
45°	1582.0	1574.2	1566.6	1563.4	1560.4	1556.0	1551.6	1555.6
47.5°	1703.2	1693.5	1683.8	1678.4	1672.8	1674.3	1675.8	1672.5
50°	1839.4	1823.2	1807.0	1800.6	1794.2	1794.2	1794.2	1793.8
52.5°	1977.2	1954.8	1932.3	1926.8	1921.4	1920.1	1918.8	1917.3
55°	2121.9	2094.3	2066.7	2056.5	2046.3	2047.8	2049.2	2053.2
57.5°	2271.0	2234.6	2198.3	2186.6	2174.8	2175.8	2176.7	2183.3
60°	2425.8	2378.9	2332.0	2319.0	2306.0	2309.5	2313.0	2317.0
62.5°	2603.0	2546.2	2489.4	2472.1	2454.8	2459.1	2463.5	2474.1
65°	2825.5	2754.6	2683.8	2665.7	2647.6	2649.6	2651.6	2669.9
67.5°	3129.8	3035.4	2941.0	2924.4	2907.8	2910.7	2913.6	2943.2
70°	3518.6	3378.7	3238.8	3169.9	3101.0	3090.2	3079.4	3095.2
72°	3601.8	3404.2	3206.6	3105.0	3003.4	2987.6	2971.7	2973.1
72.5°	3563.6	3363.7	3163.8	3065.2	2966.6	2953.6	2940.6	2938.1
75°	3365.9	3170.4	2975.0	2873.0	2771.1	2746.4	2721.8	2721.8
77.5°	3129.2	2882.7	2636.3	2526.3	2416.4	2390.6	2364.8	2344.8
80°	2451.0	2230.2	2009.4	1897.8	1786.2	1744.9	1703.6	1679.1
82.5°	1442.7	1239.6	1036.4	894.7	753.0	710.4	667.8	608.7
85°	457.0	351.6	246.2	192.2	138.1	111.6	85.2	74.5
87.5°	76.0	61.7	47.4	45.8	44.2	34.7	25.2	21.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)