

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: P144251

Luminaire Tested: **LDRL-5XQ-E04-E-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P144251
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-7050
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE EXTRA WIDE
Light Source: (84) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12691.3 lumens
Efficiency: N/A
Efficacy: 130.6 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

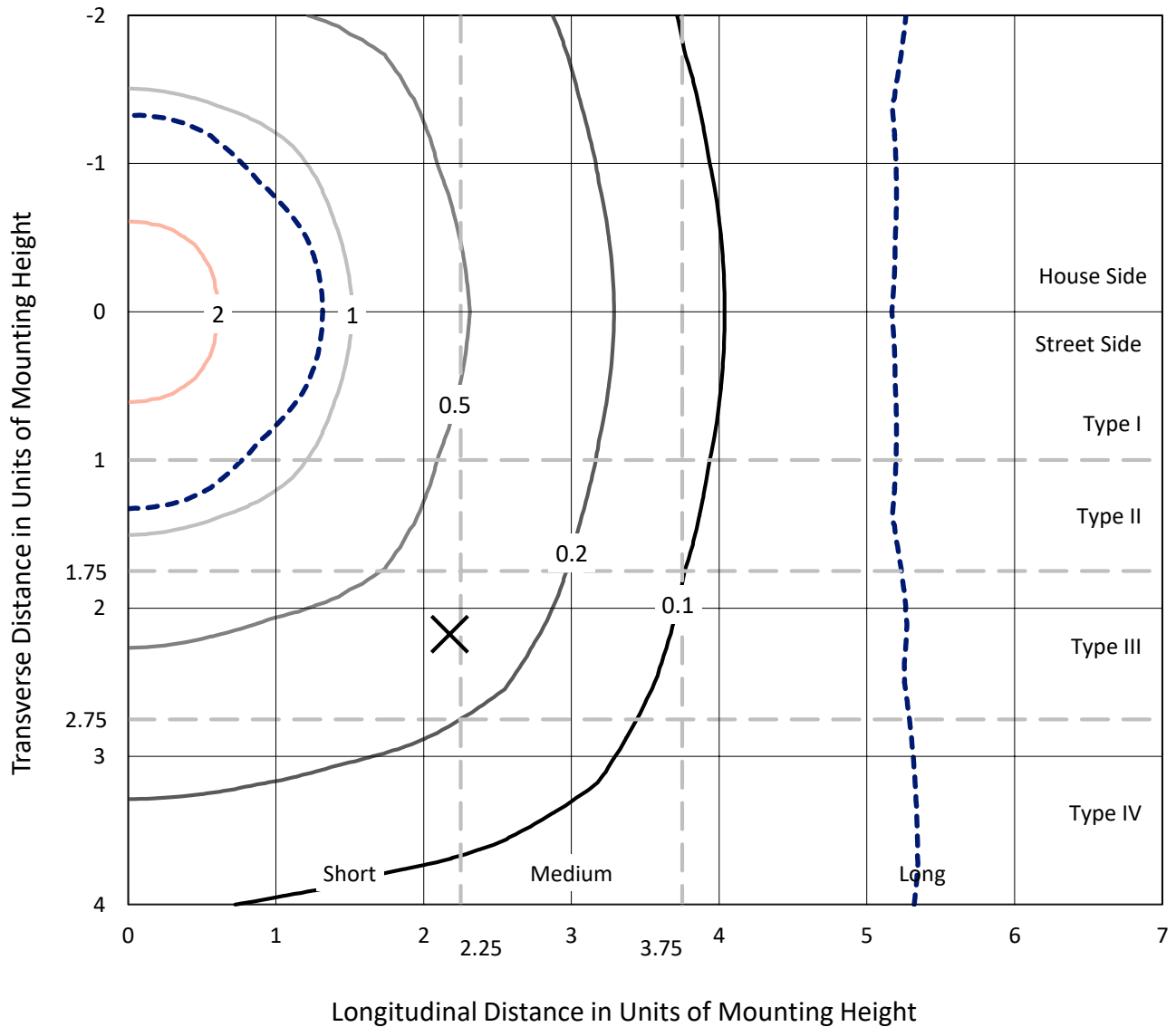


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Iso-Footcandle Lines of Horizontal Illumination

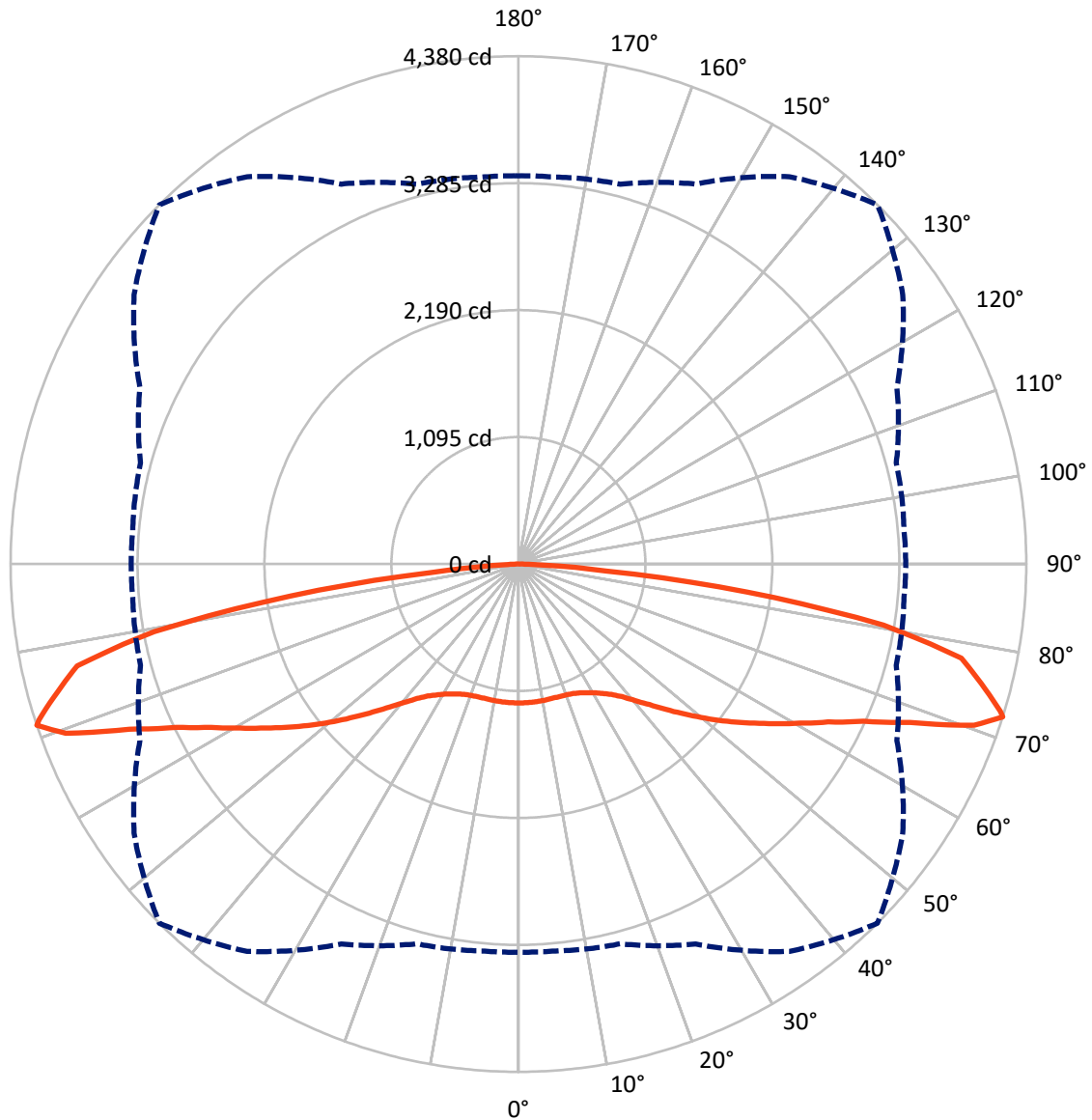
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3 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	6345.7	0.0	6345.7
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	6345.7	0.0	6345.7
	% Fixture	50.0	0.0	50.0
Total	Lumens	12691.3	0.0	12691.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.4	0.9
10°-20°	339.8	2.7
20°-30°	570.8	4.5
30°-40°	868.7	6.8
40°-50°	1373.4	10.8
50°-60°	2097.6	16.5
60°-70°	3073.0	24.2
70°-80°	3491.1	27.5
80°-90°	762.6	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°	12691.3	100.0
0°-180°	12691.3	100.0



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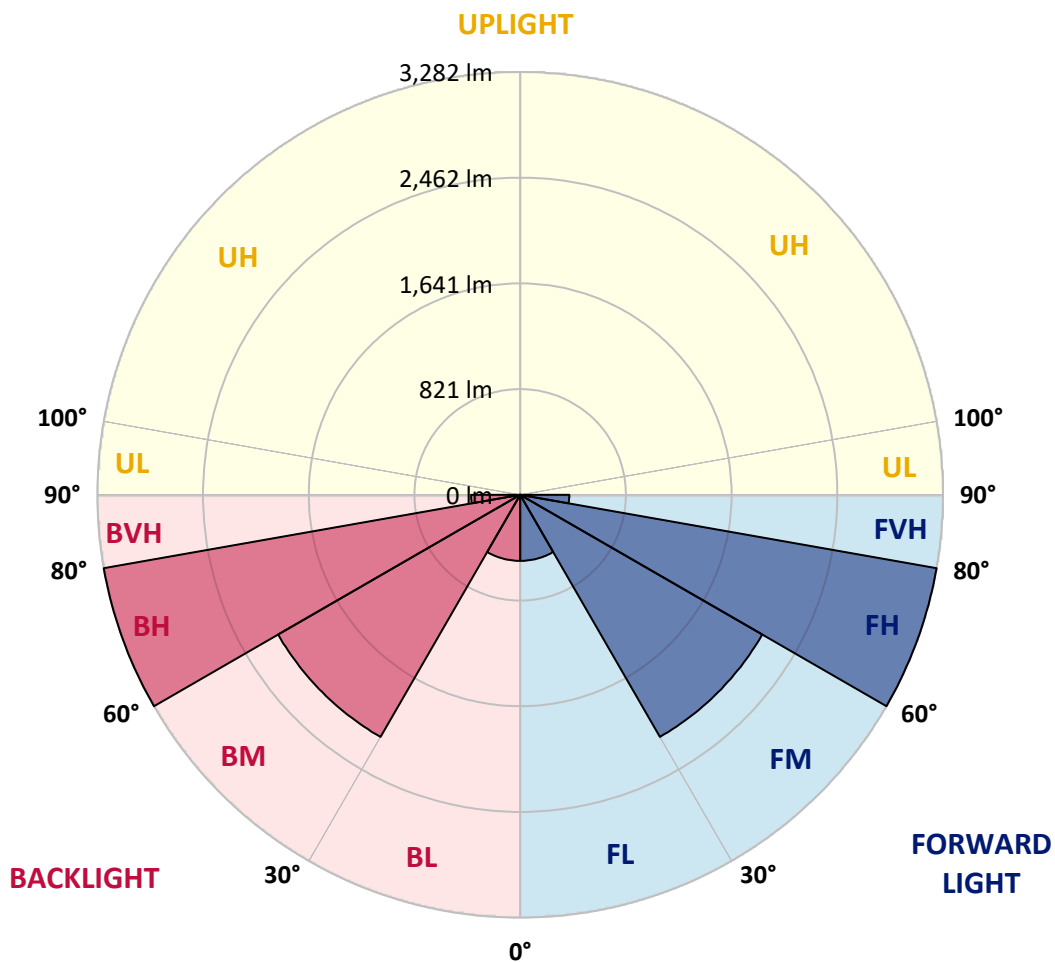
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	512.5	4.0			
FM (30°-60°)	2169.8	17.1			
FH (60°-80°)	3282.1	25.9			G2/5000
FVH (80°-90°)	381.3	3.0			G3/500
BL (0°-30°)	512.5	4.0	B2/1000		
BM (30°-60°)	2169.8	17.1	B2/2500		
BH (60°-80°)	3282.1	25.9	B4/5000		G2/5000
BVH (80°-90°)	381.3	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°	1198.5	1198.5	1198.5	1198.5	1198.5	1198.5	1198.5	1198.5	1198.5	1198.5	1198.5
2.5°	1200.9	1200.5	1199.7	1198.9	1198.5	1198.1	1198.1	1198.1	1197.8	1197.6	1197.9
5°	1201.0	1200.6	1199.9	1199.3	1198.7	1198.1	1198.1	1198.1	1197.9	1197.6	1198.1
7.5°	1199.3	1199.7	1199.1	1198.5	1198.3	1198.0	1197.9	1197.7	1197.3	1196.8	1197.1
10°	1199.8	1201.4	1200.1	1198.9	1198.5	1198.1	1197.3	1196.4	1196.2	1196.0	1195.6
12.5°	1200.6	1202.2	1200.8	1199.3	1198.7	1198.1	1197.2	1196.4	1195.8	1195.2	1194.6
15°	1203.0	1204.2	1203.0	1201.8	1200.6	1199.3	1198.5	1197.6	1196.4	1195.2	1194.6
17.5°	1204.6	1206.7	1205.2	1203.8	1202.4	1201.0	1200.2	1199.3	1198.5	1197.6	1196.6
20°	1207.5	1209.6	1208.4	1207.1	1206.3	1205.5	1204.9	1204.2	1203.6	1203.0	1201.6
22.5°	1212.8	1214.5	1214.1	1213.7	1213.9	1214.1	1214.3	1214.5	1214.1	1213.7	1212.2
25°	1223.9	1224.0	1224.8	1225.6	1226.8	1228.0	1229.1	1230.1	1230.7	1231.3	1229.4
27.5°	1243.2	1244.8	1245.5	1246.1	1248.2	1250.2	1252.4	1254.7	1255.9	1257.2	1255.3
30°	1268.3	1268.3	1269.7	1271.2	1274.6	1278.1	1281.0	1283.8	1286.1	1288.4	1286.9
32.5°	1300.2	1302.3	1304.4	1306.4	1310.8	1315.0	1320.0	1324.9	1327.8	1330.6	1328.4
35°	1349.1	1351.6	1353.6	1355.7	1360.2	1364.7	1370.2	1375.8	1378.3	1380.8	1379.3
37.5°	1418.1	1418.1	1421.0	1423.9	1426.7	1429.6	1436.9	1444.4	1447.4	1450.5	1448.1
40°	1511.2	1511.7	1512.3	1512.9	1515.6	1518.2	1527.2	1536.3	1541.6	1547.0	1541.8
42.5°	1618.4	1622.9	1622.7	1622.5	1624.3	1626.1	1634.8	1643.4	1651.0	1658.6	1655.5
45°	1744.8	1744.0	1742.3	1740.7	1746.2	1751.8	1764.1	1776.4	1783.2	1790.0	1783.6
47.5°	1872.4	1871.2	1869.0	1866.7	1872.2	1877.8	1896.3	1914.8	1924.4	1934.0	1923.8
50°	1999.6	2004.6	2001.7	1998.8	2007.0	2015.2	2038.6	2062.0	2076.2	2090.4	2078.4
52.5°	2140.4	2144.1	2140.9	2137.6	2148.9	2160.1	2187.8	2215.6	2234.4	2253.4	2237.4
55°	2286.2	2281.6	2283.5	2285.3	2296.0	2306.7	2340.8	2374.8	2397.4	2420.0	2401.9
57.5°	2422.4	2424.0	2422.2	2420.4	2437.2	2454.0	2496.9	2539.8	2568.2	2596.5	2573.9
60°	2562.0	2562.4	2558.3	2554.2	2572.5	2590.8	2652.3	2713.8	2750.5	2787.3	2756.3
62.5°	2718.0	2717.6	2710.4	2703.2	2724.7	2746.3	2822.6	2899.0	2949.4	2999.9	2962.1
65°	2909.2	2904.3	2900.2	2896.0	2920.9	2945.8	3040.6	3135.4	3203.5	3271.6	3223.0
67.5°	3191.2	3187.5	3178.9	3170.2	3198.0	3225.6	3347.2	3468.6	3556.7	3644.8	3580.5
70°	3501.5	3494.5	3500.4	3506.4	3570.4	3634.4	3797.4	3960.4	4064.6	4168.8	4060.9
72°	3348.4	3351.2	3371.2	3391.0	3503.3	3615.6	3847.1	4078.6	4229.4	4380.2	4213.4
72.5°	3295.0	3297.4	3320.0	3342.6	3449.8	3556.9	3795.6	4034.2	4190.4	4346.6	4175.0
75°	3068.5	3075.0	3101.1	3127.2	3235.7	3344.2	3585.0	3825.7	3975.3	4125.0	3953.2
77.5°	2698.6	2719.2	2745.6	2772.1	2901.4	3030.7	3302.8	3575.0	3740.2	3905.4	3710.4
80°	2059.6	2052.2	2097.8	2143.4	2266.9	2390.4	2601.0	2811.5	3001.8	3192.0	2972.8
82.5°	800.4	818.0	912.4	1006.8	1136.3	1265.8	1454.4	1643.0	1814.4	1985.7	1803.3
85°	82.5	94.0	127.8	161.7	232.3	302.9	417.8	532.8	645.4	758.1	635.8
87.5°	33.2	36.5	47.0	57.5	60.2	62.8	75.9	89.0	88.4	87.8	86.6
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°	1198.5	1198.5	1198.5	1198.5	1198.5	1198.5	1198.5	1198.5
2.5°	1198.1	1198.5	1198.9	1198.9	1198.9	1199.5	1200.2	1199.3
5°	1198.5	1198.7	1198.9	1198.9	1198.9	1199.5	1200.2	1199.3
7.5°	1197.2	1197.3	1197.3	1197.9	1198.5	1198.7	1198.9	1198.5
10°	1195.2	1195.4	1195.6	1196.2	1196.8	1197.5	1198.1	1198.5
12.5°	1194.0	1194.2	1194.4	1195.0	1195.6	1196.2	1196.8	1197.7
15°	1194.0	1194.2	1194.4	1194.8	1195.2	1196.0	1196.8	1197.7
17.5°	1195.6	1195.2	1194.8	1195.2	1195.6	1196.6	1197.6	1198.5
20°	1200.2	1199.5	1198.9	1198.9	1198.9	1199.9	1200.9	1201.0
22.5°	1210.8	1208.8	1206.7	1206.3	1205.8	1206.1	1206.3	1206.7
25°	1227.6	1224.4	1221.1	1220.1	1219.0	1218.6	1218.2	1219.0
27.5°	1253.5	1249.8	1246.1	1243.9	1241.6	1240.4	1239.2	1239.5
30°	1285.5	1281.2	1276.9	1273.2	1269.5	1267.9	1266.2	1266.6
32.5°	1326.2	1321.0	1315.8	1311.0	1306.1	1303.8	1301.5	1301.9
35°	1377.9	1371.9	1366.0	1361.9	1357.8	1354.2	1350.8	1353.6
37.5°	1445.6	1440.0	1434.4	1431.8	1429.2	1426.1	1423.0	1423.4
40°	1536.7	1531.0	1525.2	1522.9	1520.6	1516.8	1512.9	1513.7
42.5°	1652.4	1643.8	1635.2	1631.1	1627.0	1625.2	1623.3	1624.5
45°	1777.2	1768.6	1760.0	1756.5	1753.0	1748.1	1743.2	1747.7
47.5°	1913.5	1902.6	1891.8	1885.6	1879.4	1881.0	1882.7	1879.0
50°	2066.6	2048.3	2030.0	2022.9	2015.7	2015.7	2015.6	2015.3
52.5°	2221.4	2196.1	2170.8	2164.6	2158.5	2157.1	2155.6	2154.0
55°	2383.9	2352.9	2321.9	2310.4	2298.8	2300.5	2302.2	2306.7
57.5°	2551.3	2510.5	2469.6	2456.5	2443.4	2444.4	2445.4	2452.8
60°	2725.4	2672.6	2619.9	2605.3	2590.7	2594.6	2598.5	2603.0
62.5°	2924.4	2860.6	2796.8	2777.3	2757.8	2762.7	2767.6	2779.5
65°	3174.4	3094.7	3015.1	2994.8	2974.4	2976.7	2979.0	2999.5
67.5°	3516.2	3410.2	3304.0	3285.4	3266.7	3270.0	3273.3	3306.5
70°	3953.0	3795.8	3638.6	3561.2	3483.8	3471.7	3459.6	3477.3
72°	4046.6	3824.5	3602.4	3488.4	3374.2	3356.4	3338.6	3340.2
72.5°	4003.4	3779.0	3554.4	3443.6	3332.8	3318.2	3303.6	3300.8
75°	3781.4	3561.8	3342.2	3227.7	3113.2	3085.5	3057.8	3057.8
77.5°	3515.4	3238.6	2961.8	2838.2	2714.6	2685.7	2656.8	2634.2
80°	2753.6	2505.5	2257.4	2132.0	2006.6	1960.3	1913.9	1886.4
82.5°	1620.8	1392.6	1164.4	1005.2	846.0	798.1	750.3	683.8
85°	513.4	395.0	276.6	215.8	155.1	125.4	95.6	83.7
87.5°	85.4	69.4	53.4	51.5	49.7	39.0	28.3	23.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)