

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: P143965

Luminaire Tested: **LDRL-5WQ-F05-E**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P143965
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-F05-E
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE WIDE
Light Source: (35) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12653.5 lumens
Efficiency: N/A
Efficacy: 94.9 lumens/watt
Luminous Opening: Rectangular (W 0.83' x L: 1' x H: 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B4 - U0 - G2

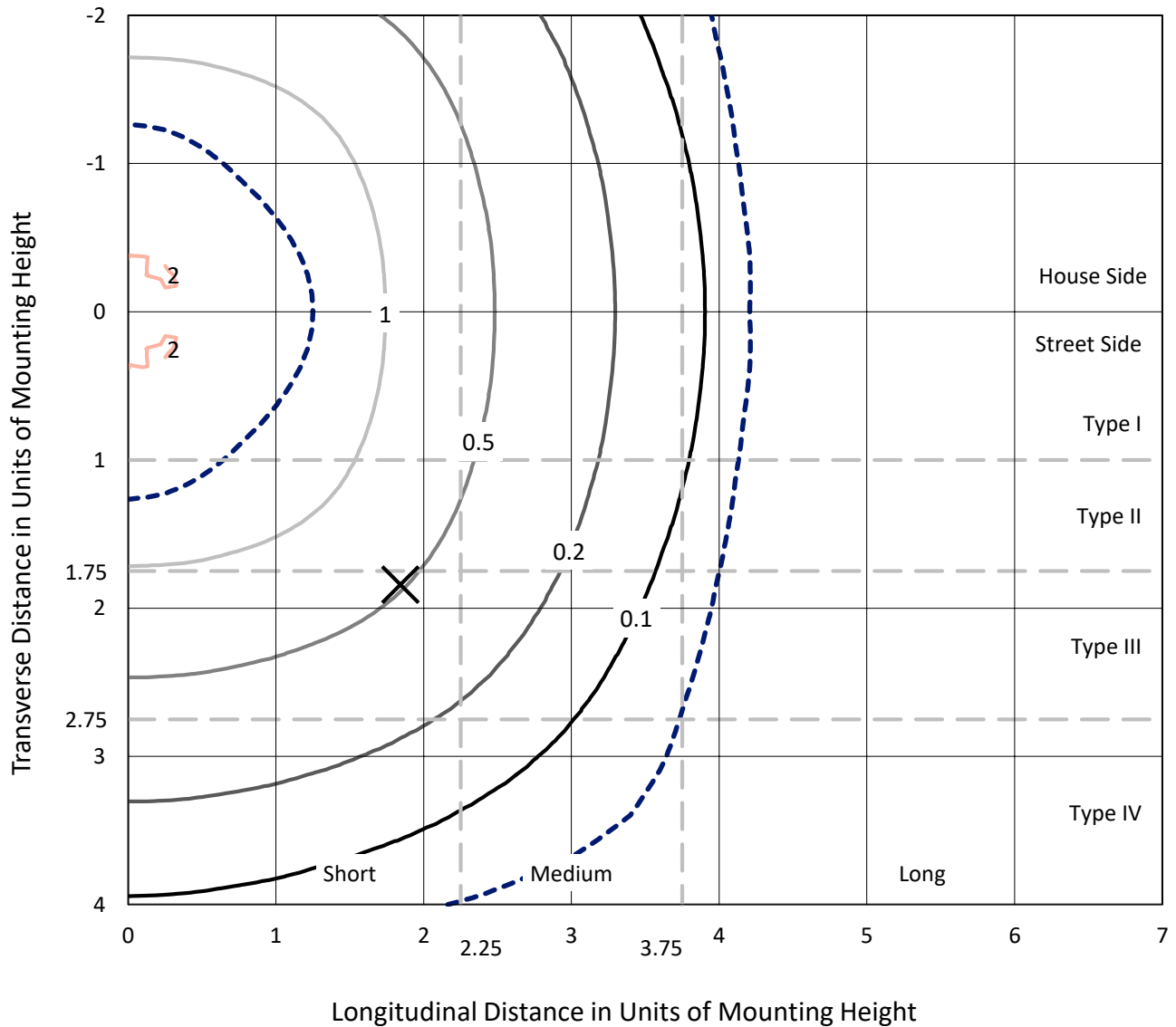
Input Watts (W): 133.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

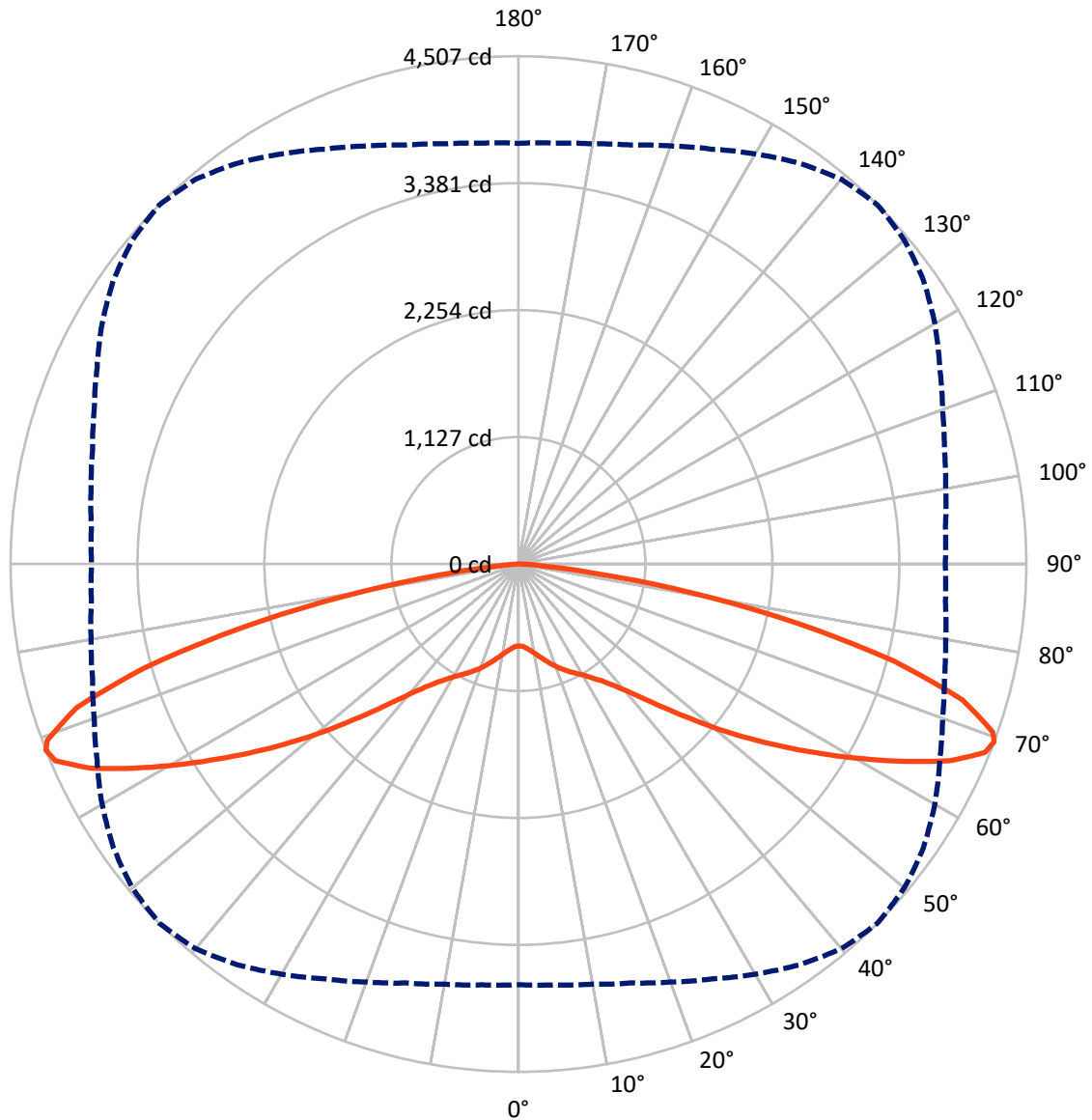
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 2 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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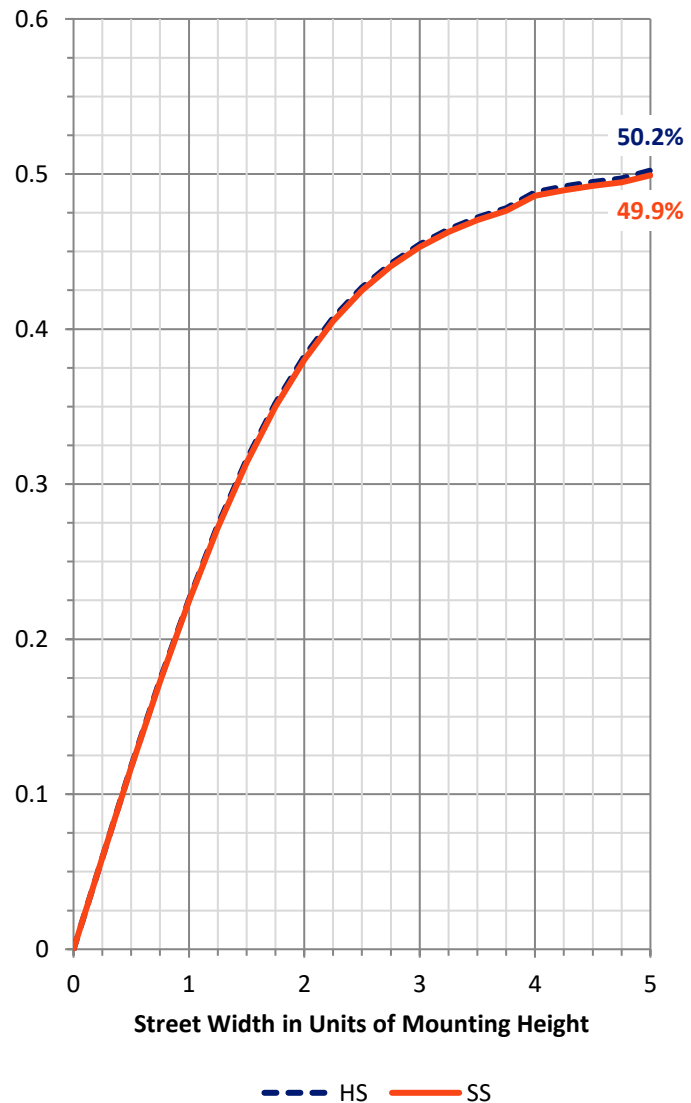
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6326.8	0.0	6326.8
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	6326.8	0.0	6326.8
	% Fixture	50.0	0.0	50.0
Total	Lumens	12653.5	0.0	12653.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.4	0.6
10°-20°	252.8	2.0
20°-30°	487.4	3.9
30°-40°	798.7	6.3
40°-50°	1388.8	11.0
50°-60°	2467.0	19.5
60°-70°	3830.2	30.3
70°-80°	3051.7	24.1
80°-90°	303.5	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°	12653.5	100.0
0°-180°	12653.5	100.0



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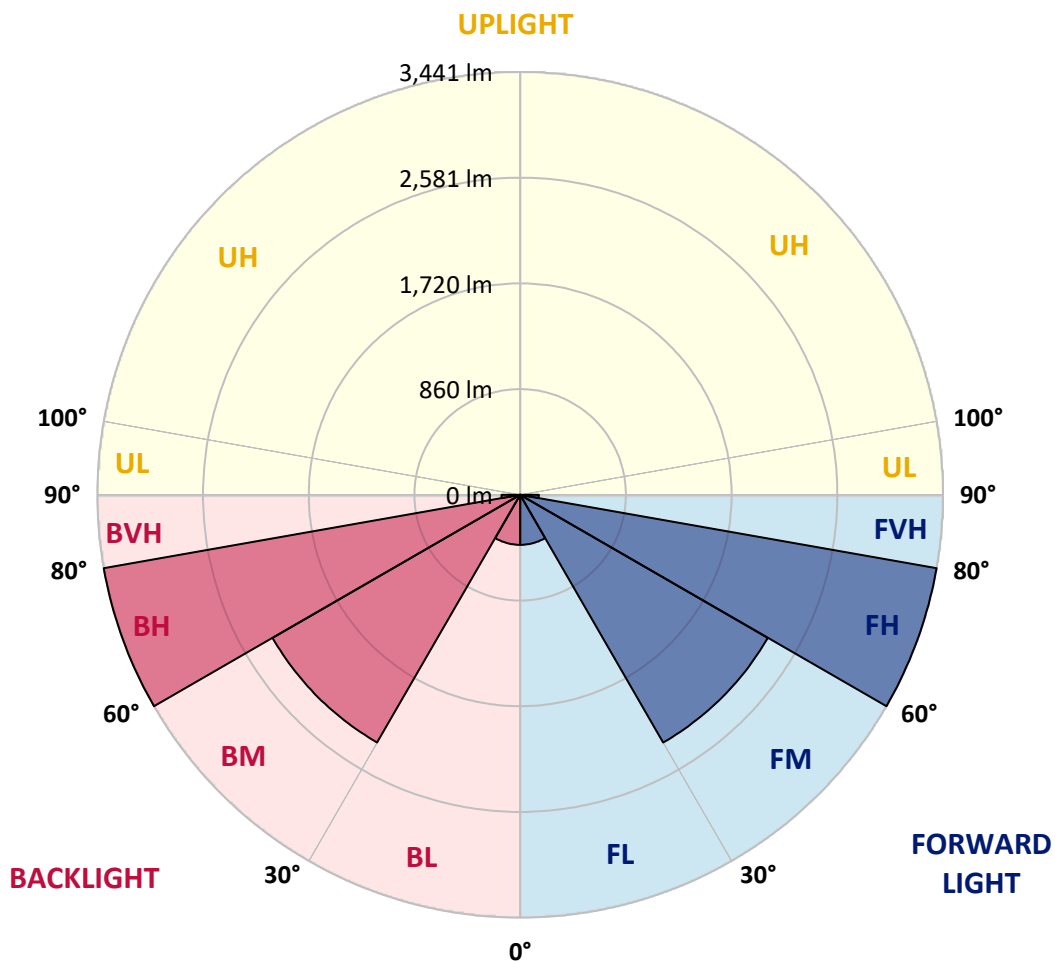
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	406.8	3.2			
FM	(30°-60°)	2327.3	18.4			
FH	(60°-80°)	3440.9	27.2			G2/5000
FVH	(80°-90°)	151.7	1.2			G2/225
BL	(0°-30°)	406.8	3.2	B1/500		
BM	(30°-60°)	2327.3	18.4	B2/2500		
BH	(60°-80°)	3440.9	27.2	B4/5000		G2/5000
BVH	(80°-90°)	151.7	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°	727.3	727.3	727.3	727.3	727.3	727.3	727.3	727.3	727.3	727.3	727.3
2.5°	733.1	733.1	733.1	732.2	732.2	731.4	732.2	731.4	731.4	731.4	731.4
5°	752.1	750.4	750.4	749.6	751.2	751.2	749.6	750.4	749.6	750.4	750.4
7.5°	776.0	776.0	776.0	775.2	776.8	776.0	775.2	776.0	776.0	775.2	775.2
10°	805.7	806.5	805.7	805.7	808.2	807.4	808.2	808.2	809.0	808.2	808.2
12.5°	840.4	840.4	841.2	842.0	842.9	843.7	846.2	845.3	847.0	845.3	845.3
15°	880.8	882.5	880.8	880.8	883.3	885.0	885.8	885.8	887.4	886.6	885.0
17.5°	923.8	924.6	923.8	922.9	925.4	927.9	928.7	928.7	931.2	929.5	929.5
20°	967.5	968.3	966.7	965.9	969.2	969.2	970.8	971.6	974.1	974.9	972.5
22.5°	1008.0	1008.8	1008.0	1007.1	1010.4	1010.4	1012.9	1013.7	1017.0	1016.2	1016.2
25°	1047.6	1047.6	1046.8	1046.8	1050.1	1050.9	1053.4	1055.0	1058.3	1058.3	1058.3
27.5°	1083.9	1084.7	1083.1	1082.3	1088.9	1091.3	1093.0	1096.3	1098.8	1100.4	1099.6
30°	1125.2	1125.2	1124.4	1126.8	1131.0	1134.3	1137.6	1142.5	1147.5	1145.8	1145.8
32.5°	1173.9	1175.5	1174.7	1178.0	1183.0	1187.9	1192.1	1197.8	1200.3	1204.4	1201.1
35°	1239.1	1242.4	1240.8	1244.1	1248.2	1251.5	1260.6	1266.4	1270.5	1273.0	1271.3
37.5°	1320.8	1319.2	1322.5	1323.3	1331.6	1335.7	1346.4	1354.7	1361.3	1363.8	1362.1
40°	1422.4	1419.9	1424.0	1428.2	1438.9	1443.0	1455.4	1467.8	1476.9	1480.2	1478.5
42.5°	1543.7	1547.0	1553.6	1559.4	1574.3	1585.8	1599.9	1618.0	1627.9	1632.1	1626.3
45°	1703.1	1697.3	1709.7	1724.5	1732.8	1758.4	1781.5	1800.5	1817.0	1823.6	1817.0
47.5°	1884.7	1883.8	1898.7	1916.9	1938.3	1962.3	1989.5	2014.3	2043.2	2044.8	2036.6
50°	2085.3	2101.8	2110.0	2128.2	2167.8	2197.5	2232.2	2269.4	2295.8	2304.0	2289.2
52.5°	2327.2	2339.5	2344.5	2375.0	2411.4	2447.7	2496.4	2541.0	2571.5	2574.8	2567.4
55°	2589.7	2599.6	2608.7	2645.8	2685.4	2717.6	2779.5	2823.3	2853.8	2865.4	2860.4
57.5°	2861.3	2870.4	2881.9	2922.4	2962.8	3008.2	3066.8	3118.0	3153.5	3175.0	3169.2
60°	3162.6	3162.6	3189.0	3229.5	3262.5	3316.1	3377.2	3436.7	3475.5	3509.3	3500.2
62.5°	3479.6	3488.7	3514.3	3547.3	3582.0	3631.5	3700.8	3771.8	3831.3	3856.9	3856.0
65°	3719.8	3736.3	3770.2	3808.1	3865.9	3924.5	4012.1	4100.4	4172.2	4209.4	4209.4
67.5°	3790.0	3800.7	3842.8	3900.6	3984.0	4077.3	4196.1	4319.1	4417.4	4466.1	4435.5
69°	3733.8	3749.5	3786.7	3849.4	3948.5	4062.4	4203.6	4343.1	4457.0	4507.4	4471.9
70°	3668.6	3686.0	3723.1	3785.0	3887.4	4008.7	4149.9	4300.2	4422.3	4465.3	4424.8
72.5°	3402.8	3424.3	3450.7	3504.4	3596.8	3710.7	3837.9	3969.9	4087.2	4121.0	4070.7
75°	2949.6	2953.7	2966.9	3006.6	3039.6	3120.5	3228.6	3333.5	3421.8	3441.6	3388.0
77.5°	2087.8	2065.5	2043.2	2077.0	2103.4	2207.5	2324.7	2410.5	2503.0	2531.1	2476.6
80°	915.5	907.3	938.6	983.2	1099.6	1168.9	1283.7	1406.7	1485.1	1576.8	1478.5
82.5°	180.8	190.7	220.4	272.4	336.0	422.7	497.8	582.8	659.6	694.3	658.8
85°	73.5	80.1	90.8	101.5	109.0	122.2	143.6	178.3	196.5	199.0	189.0
87.5°	30.5	35.5	47.9	57.0	57.8	55.3	57.0	58.6	47.9	38.8	48.7
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°	727.3	727.3	727.3	727.3	727.3	727.3	727.3	727.3
2.5°	731.4	732.2	731.4	732.2	731.4	731.4	732.2	731.4
5°	749.6	750.4	749.6	748.8	747.9	748.8	748.8	748.8
7.5°	775.2	774.3	773.5	773.5	772.7	771.9	773.5	773.5
10°	806.5	805.7	804.1	804.1	803.2	803.2	803.2	803.2
12.5°	844.5	842.0	841.2	838.7	837.9	837.1	837.1	837.9
15°	884.1	881.7	880.8	876.7	876.7	875.9	875.9	875.9
17.5°	926.2	923.8	920.5	920.5	918.0	916.3	917.2	915.5
20°	969.2	965.9	964.2	963.4	960.1	960.1	960.1	959.3
22.5°	1011.3	1008.8	1006.3	1003.0	999.7	998.9	998.9	998.1
25°	1054.2	1050.1	1045.1	1041.8	1038.5	1036.0	1036.0	1036.0
27.5°	1097.1	1092.2	1084.7	1080.6	1075.7	1073.2	1073.2	1072.4
30°	1142.5	1136.7	1130.1	1124.4	1117.8	1115.3	1114.5	1112.8
32.5°	1197.0	1191.2	1184.6	1176.4	1169.8	1165.6	1165.6	1163.2
35°	1266.4	1259.8	1254.8	1244.1	1235.8	1229.2	1230.0	1231.7
37.5°	1357.2	1348.9	1344.8	1331.6	1320.8	1314.2	1314.2	1313.4
40°	1472.7	1464.5	1455.4	1443.0	1429.8	1420.7	1418.3	1418.3
42.5°	1619.7	1612.3	1599.9	1582.5	1566.8	1556.9	1548.7	1549.5
45°	1803.8	1794.7	1777.4	1755.9	1736.9	1722.9	1711.3	1711.3
47.5°	2027.5	2008.5	1984.6	1965.6	1933.4	1911.9	1903.7	1902.0
50°	2282.6	2247.1	2217.4	2190.1	2156.3	2134.0	2121.6	2118.3
52.5°	2550.0	2512.9	2475.7	2440.3	2399.0	2375.9	2356.0	2354.4
55°	2840.6	2793.6	2746.5	2711.8	2663.1	2639.2	2619.4	2607.8
57.5°	3137.0	3084.2	3050.3	3000.8	2949.6	2932.3	2913.3	2899.2
60°	3470.5	3412.7	3368.1	3316.1	3283.1	3246.0	3227.8	3217.1
62.5°	3811.4	3757.8	3700.8	3651.3	3605.1	3579.5	3554.7	3542.3
65°	4158.2	4069.8	4002.1	3933.6	3879.1	3832.9	3794.1	3789.2
67.5°	4371.2	4259.7	4146.6	4046.7	3966.6	3901.4	3861.8	3847.8
69°	4388.5	4267.1	4126.0	4006.3	3913.8	3851.1	3804.0	3789.2
70°	4340.6	4218.4	4069.8	3941.1	3845.3	3776.8	3738.0	3713.2
72.5°	3990.6	3883.3	3740.5	3613.3	3526.6	3446.6	3407.8	3397.9
75°	3292.2	3178.3	3047.0	2985.9	2925.7	2875.3	2848.9	2846.4
77.5°	2337.9	2221.5	2121.6	2041.5	1976.3	1944.1	1951.5	1924.3
80°	1338.2	1186.3	1065.8	994.8	898.2	840.4	775.2	822.2
82.5°	575.4	464.8	354.2	288.1	219.6	174.2	143.6	133.7
85°	161.0	131.3	109.8	100.7	90.8	80.9	68.5	63.6
87.5°	54.5	52.0	46.2	46.2	42.1	35.5	24.8	22.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)