

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: P143620

Luminaire Tested: **LDRL-5MQ-E01-E**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P143620
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-E01-E
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM
Light Source: (21) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3107.7 lumens
Efficiency: N/A
Efficacy: 125.8 lumens/watt
Luminous Opening: Rectangular (W 0.17' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B2 - U0 - G1

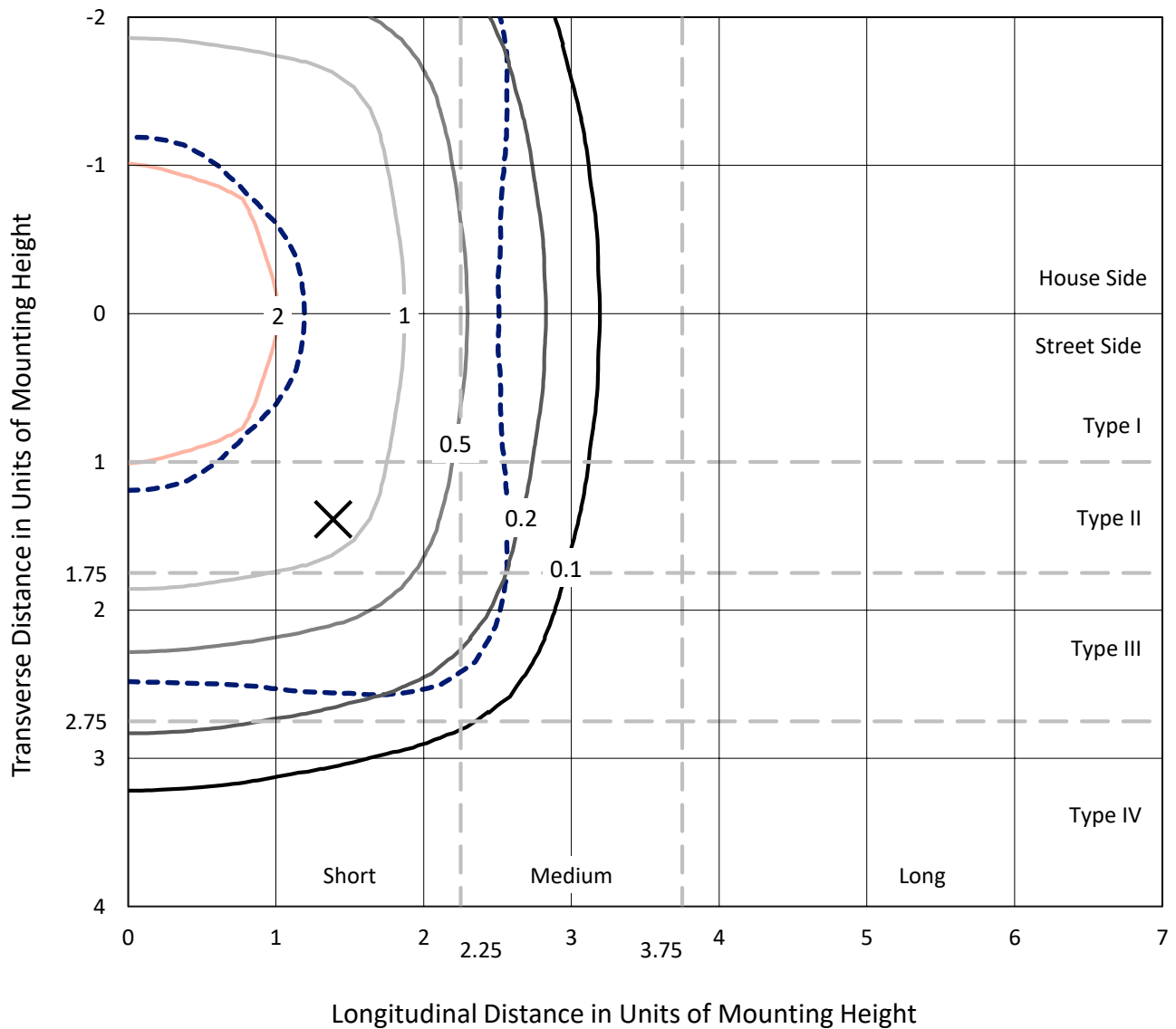
Input Watts (W): 24.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

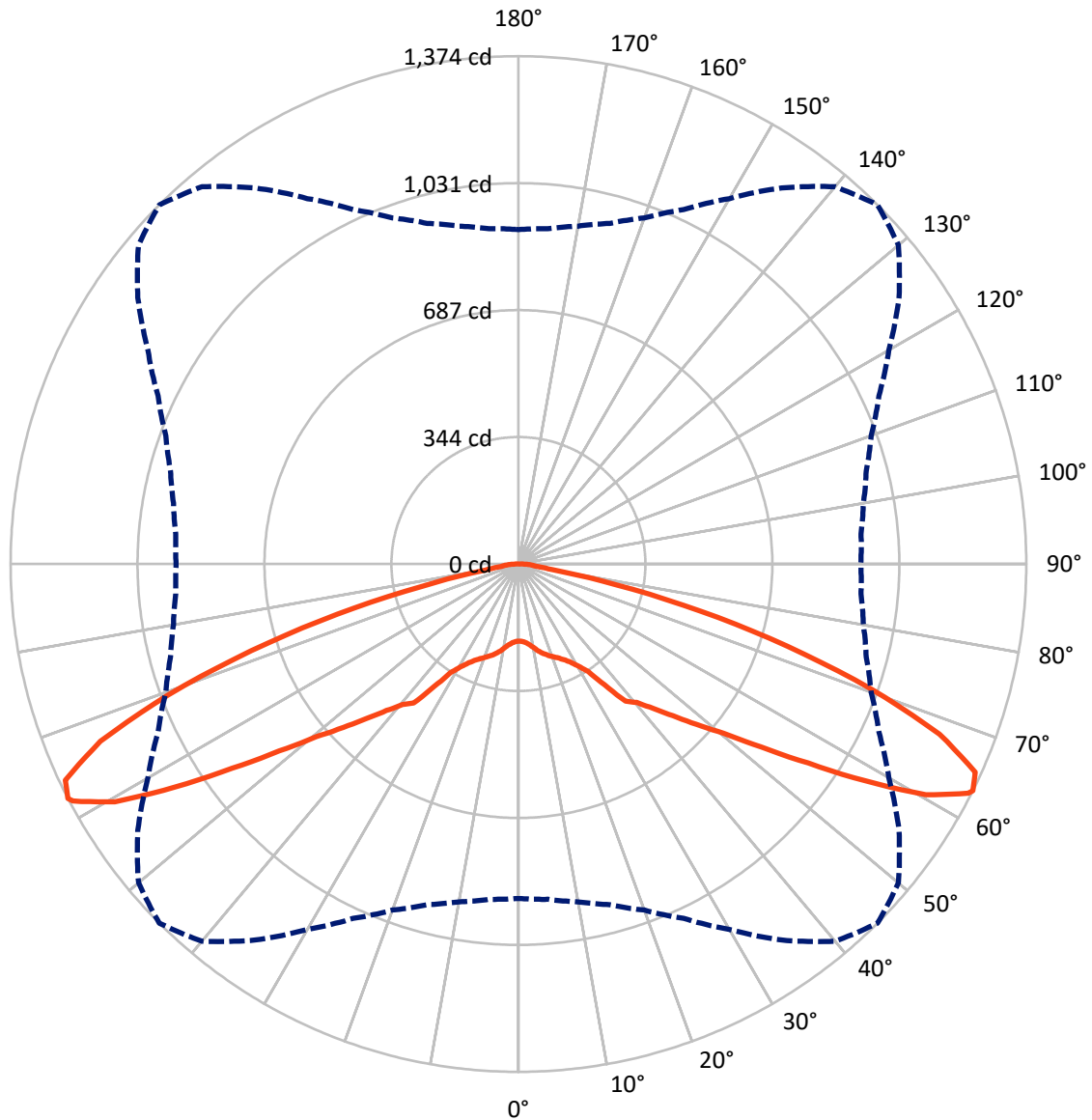
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.3 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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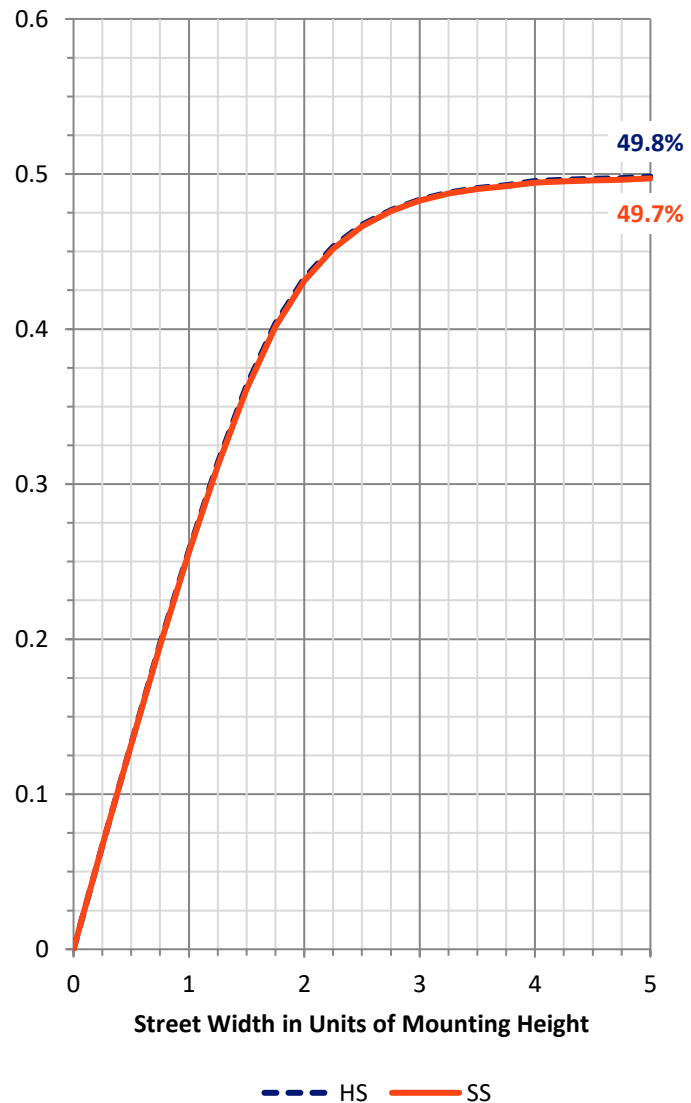
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1553.8	0.0	1553.8
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	1553.8	0.0	1553.8
	% Fixture	50.0	0.0	50.0
Total	Lumens	3107.7	0.0	3107.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.0	0.7
10°-20°	71.7	2.3
20°-30°	137.0	4.4
30°-40°	261.1	8.4
40°-50°	449.5	14.5
50°-60°	803.3	25.8
60°-70°	978.5	31.5
70°-80°	348.5	11.2
80°-90°	37.0	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°	3107.7	100.0
0°-180°	3107.7	100.0



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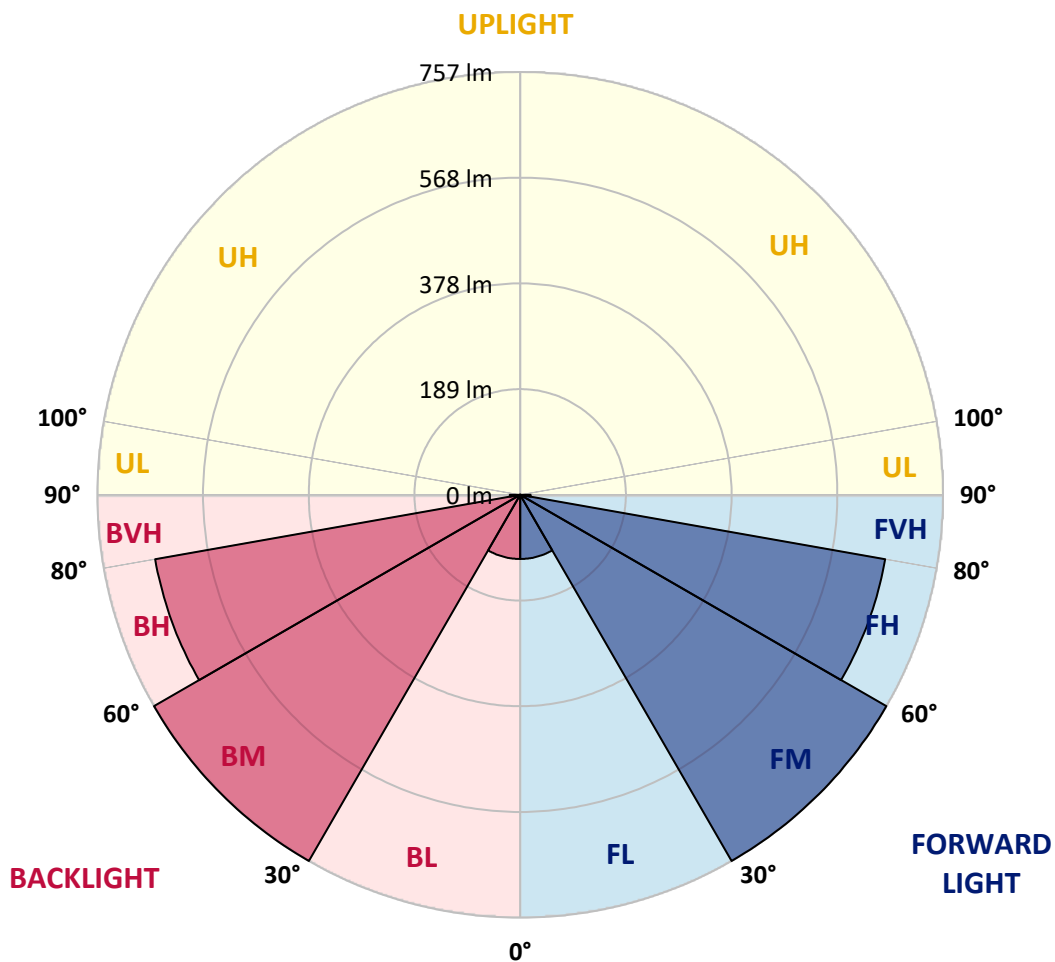
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	114.9	3.7			
FM (30°-60°)	757.0	24.4			
FH (60°-80°)	663.5	21.4			G1/1800
FVH (80°-90°)	18.5	0.6			G1/100
BL (0°-30°)	114.9	3.7	B1/500		
BM (30°-60°)	757.0	24.4	B1/1000		
BH (60°-80°)	663.5	21.4	B2/1000		G1/1800
BVH (80°-90°)	18.5	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G1

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	208.6	208.6	208.6	208.6	208.6	208.6	208.6	208.6	208.6	208.6	208.6
2.5°	210.2	210.0	210.2	209.8	209.8	209.6	209.6	209.6	209.2	209.6	209.2
5°	214.6	214.4	214.6	214.2	214.2	213.8	213.8	213.8	213.4	213.8	213.6
7.5°	222.2	222.6	222.2	221.8	221.8	221.4	221.2	221.2	221.0	220.8	221.2
10°	232.8	233.2	232.6	232.2	232.0	231.8	231.4	231.2	231.2	230.4	230.6
12.5°	244.0	244.0	243.4	243.2	243.2	242.8	242.0	241.8	241.8	241.4	241.0
15°	254.0	254.0	253.6	252.8	253.0	252.4	251.8	251.4	251.4	251.0	250.6
17.5°	263.2	263.2	262.6	261.8	261.4	261.2	260.4	260.0	260.0	259.6	259.2
20°	272.4	272.8	271.8	271.0	270.2	269.4	268.6	268.2	267.6	267.8	267.6
22.5°	283.4	283.6	282.0	281.0	279.4	278.4	277.2	276.8	276.0	276.0	276.4
25°	297.4	297.2	295.4	293.6	291.8	289.8	288.0	287.6	286.8	286.6	286.8
27.5°	315.8	315.6	313.4	311.0	308.6	305.6	303.4	302.2	301.6	300.8	301.2
30°	338.4	338.8	336.2	333.4	330.4	326.8	324.0	322.4	321.2	320.4	320.8
32.5°	384.4	384.0	380.0	374.0	367.6	359.2	352.4	349.6	347.4	346.6	347.2
35°	430.6	430.2	428.6	426.8	425.2	419.8	414.8	409.0	404.2	401.2	402.0
37.5°	452.4	452.4	451.2	450.8	450.8	454.0	458.0	465.2	470.8	471.2	469.4
40°	486.4	486.4	484.4	483.4	482.8	483.8	486.4	489.0	491.8	492.4	490.4
42.5°	526.4	524.6	523.2	521.2	521.0	522.0	524.8	528.0	530.8	533.2	529.0
45°	569.6	568.0	566.6	565.4	566.2	568.8	572.6	578.2	582.2	585.8	582.4
47.5°	617.8	614.4	615.8	614.6	616.6	621.8	628.6	637.0	641.2	647.6	642.2
50°	677.8	678.6	677.8	677.8	680.2	687.0	697.0	708.4	715.6	719.2	716.0
52.5°	767.0	764.6	759.2	760.8	764.0	774.8	787.8	803.8	813.0	821.6	811.6
55°	864.6	865.0	864.2	866.4	872.6	883.6	900.0	924.2	935.8	950.8	938.8
57.5°	945.4	948.2	953.0	959.6	973.0	991.4	1023.6	1060.6	1091.4	1107.6	1088.8
60°	971.6	974.4	986.0	1004.4	1029.6	1067.2	1119.4	1182.8	1238.2	1267.0	1242.4
62.5°	921.2	926.4	943.6	969.0	1010.6	1069.4	1147.0	1240.8	1326.2	1365.6	1335.8
63°	904.8	910.6	928.2	954.0	996.4	1057.8	1141.6	1242.0	1332.4	1374.0	1341.8
65°	832.0	835.8	854.4	883.8	931.0	995.0	1088.2	1207.0	1310.0	1358.2	1324.0
67.5°	717.4	722.4	739.4	764.8	810.6	878.4	970.0	1088.4	1189.8	1228.4	1199.2
70°	575.4	581.0	595.0	618.6	654.6	717.4	795.8	906.4	982.6	1012.8	981.6
72.5°	404.4	406.8	417.0	441.8	468.8	518.8	581.0	667.0	740.2	760.0	730.0
75°	171.2	171.4	184.8	200.6	234.4	284.2	338.4	412.4	478.2	509.0	471.0
77.5°	54.8	55.4	59.2	65.0	76.2	98.4	138.4	179.0	239.4	268.6	233.0
80°	45.8	46.6	48.2	49.4	50.2	51.4	56.0	62.4	78.6	91.4	73.8
82.5°	39.4	40.8	44.4	45.8	46.6	47.0	47.6	47.4	46.4	46.0	46.2
85°	30.0	33.4	37.4	40.6	41.0	41.2	42.4	42.8	39.6	36.4	39.6
87.5°	13.0	16.8	25.8	28.6	28.0	26.0	27.8	29.4	26.8	19.6	26.2
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°	208.6	208.6	208.6	208.6	208.6	208.6	208.6	208.6
2.5°	209.4	209.8	209.8	209.8	209.8	210.0	210.2	210.0
5°	213.8	214.2	214.0	214.2	214.2	214.4	214.6	214.4
7.5°	221.4	221.4	221.4	221.8	221.8	222.2	222.2	222.2
10°	230.8	230.6	230.6	231.0	231.4	231.6	232.0	231.8
12.5°	241.0	240.6	240.8	241.2	241.6	241.8	242.2	242.0
15°	250.2	250.0	250.0	250.6	250.8	251.0	251.8	251.8
17.5°	259.0	259.0	259.0	259.8	260.0	260.8	261.4	261.4
20°	267.8	267.8	267.8	268.6	269.2	270.4	271.6	271.4
22.5°	276.8	277.0	277.4	278.2	279.6	281.4	282.4	282.4
25°	288.0	288.8	289.6	290.8	292.8	295.2	296.8	297.4
27.5°	302.4	304.2	306.2	308.0	310.2	313.2	315.4	315.8
30°	322.0	324.6	327.8	330.2	333.0	336.4	339.0	340.4
32.5°	349.8	356.2	360.4	369.0	374.2	380.0	384.8	386.8
35°	407.0	413.4	419.0	424.8	426.0	428.0	430.6	431.2
37.5°	463.6	458.4	453.4	453.2	451.8	452.2	453.0	454.0
40°	488.2	486.6	484.0	485.0	485.2	485.2	486.8	487.0
42.5°	527.8	524.0	521.0	523.4	523.8	524.2	525.8	527.6
45°	578.2	572.4	568.6	567.2	568.6	568.2	570.4	570.8
47.5°	635.8	628.2	619.6	616.8	616.0	614.2	618.0	617.6
50°	706.4	694.2	683.8	679.8	677.8	676.8	677.8	677.8
52.5°	795.8	783.6	769.4	764.8	763.2	765.4	762.2	765.6
55°	918.8	899.0	879.6	873.4	872.4	871.4	871.8	873.2
57.5°	1057.2	1022.0	996.0	980.8	971.0	966.2	961.0	960.2
60°	1190.8	1126.8	1077.4	1043.8	1020.0	1002.0	992.8	989.6
62.5°	1255.2	1161.6	1084.8	1027.6	992.2	962.8	946.6	942.4
63°	1257.0	1157.2	1075.8	1015.4	974.2	947.8	930.6	926.2
65°	1223.6	1110.0	1014.6	948.2	904.6	877.0	855.8	851.2
67.5°	1102.0	991.8	894.2	826.8	779.6	757.4	734.0	733.4
70°	904.4	806.0	723.8	661.8	622.4	600.4	576.6	577.2
72.5°	661.2	573.8	517.2	468.8	427.2	406.4	384.0	386.2
75°	398.0	320.0	269.0	227.0	184.2	158.6	141.4	131.6
77.5°	170.2	116.4	83.6	66.4	56.0	51.8	49.8	49.2
80°	59.2	52.4	49.4	48.6	48.0	47.2	45.8	44.4
82.5°	48.0	48.0	46.4	46.2	44.4	43.0	39.4	37.6
85°	42.6	41.8	40.4	39.8	39.4	36.4	31.8	29.4
87.5°	28.2	26.2	25.0	25.6	24.8	22.2	13.6	10.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)