

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: P143619

Luminaire Tested: **LDRL-5MQ-E01-E-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P143619
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-7030
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM
Light Source: (21) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2838.4 lumens
Efficiency: N/A
Efficacy: 114.9 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

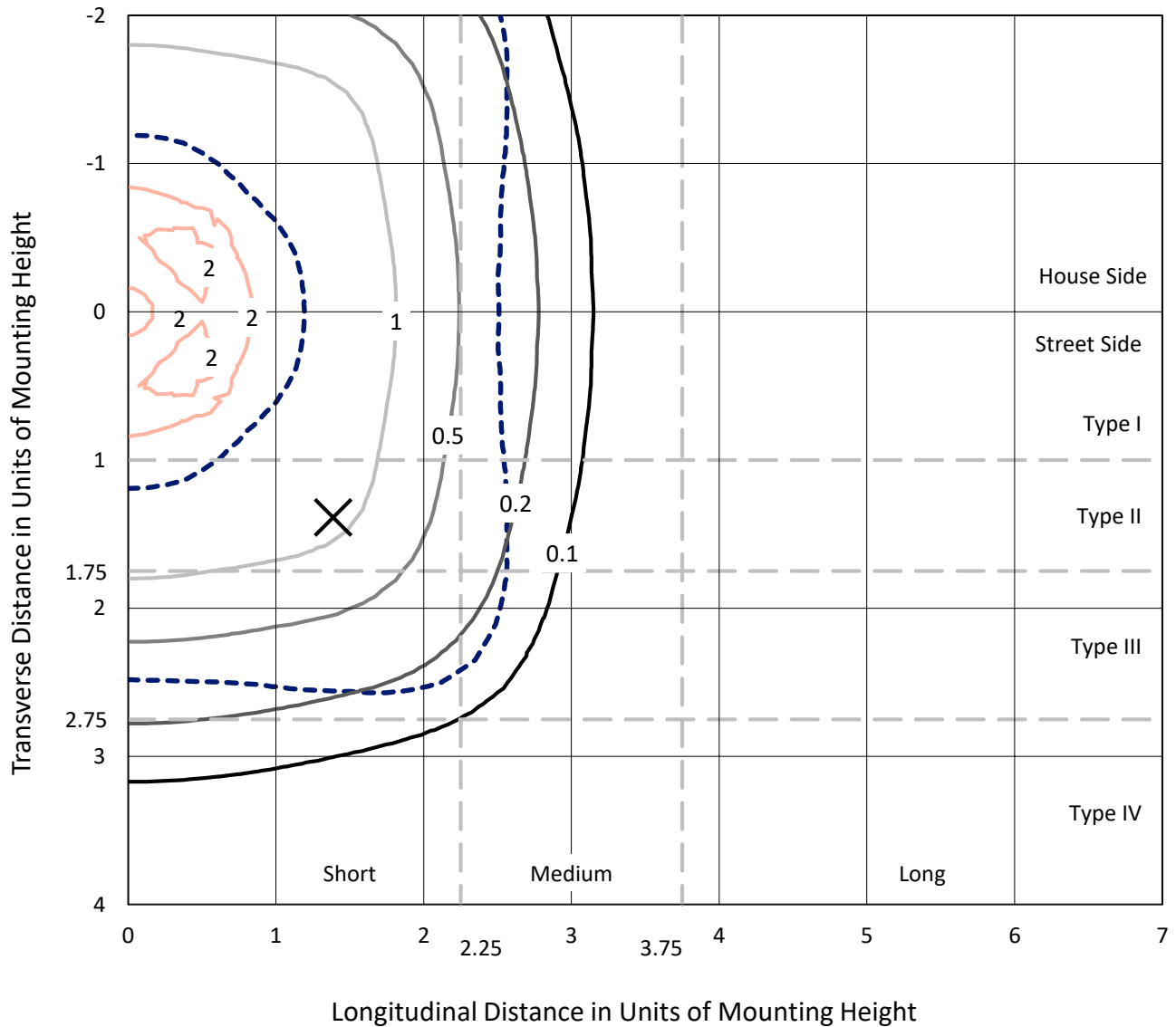
Input Watts (W): 24.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

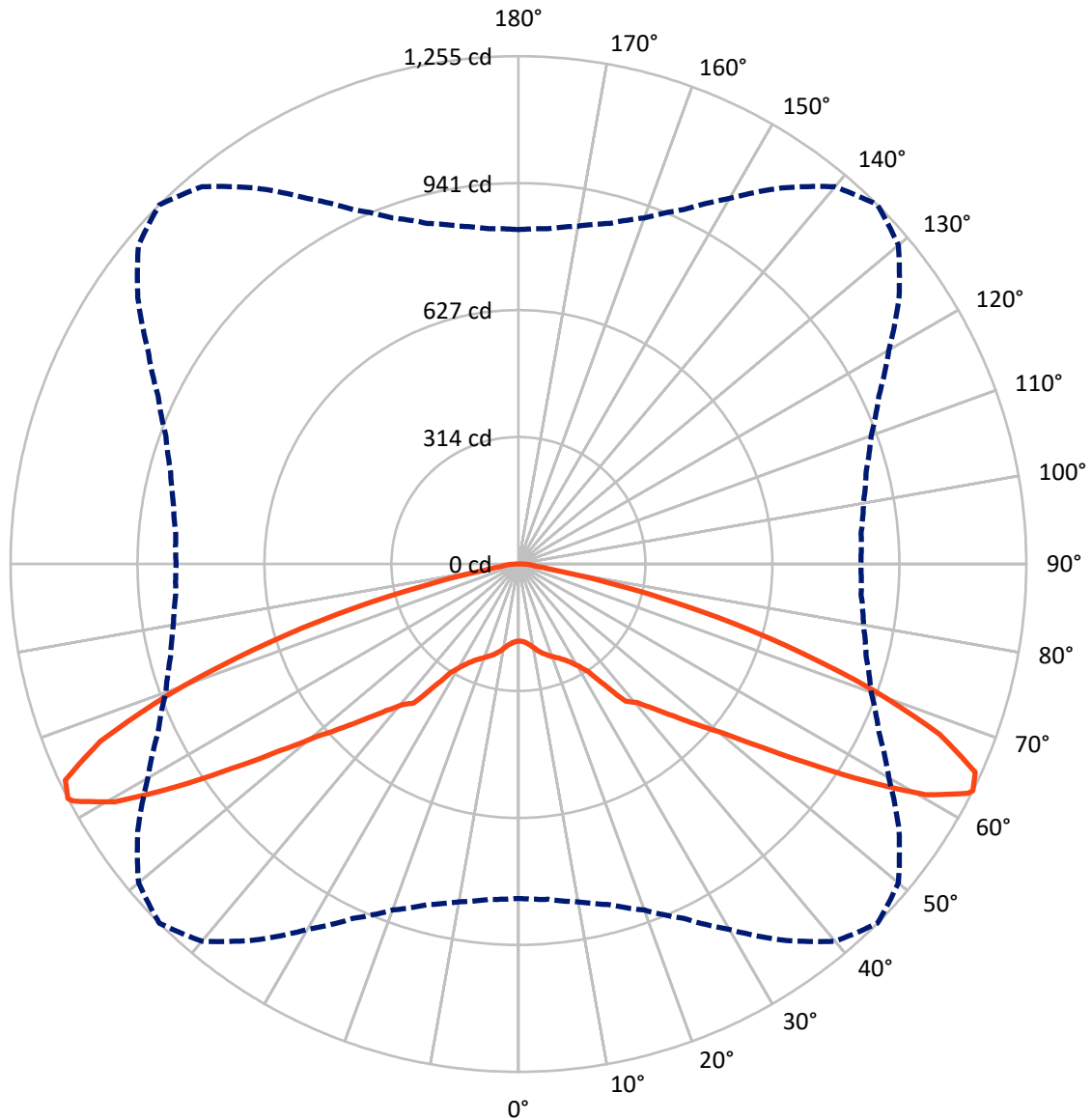
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.1 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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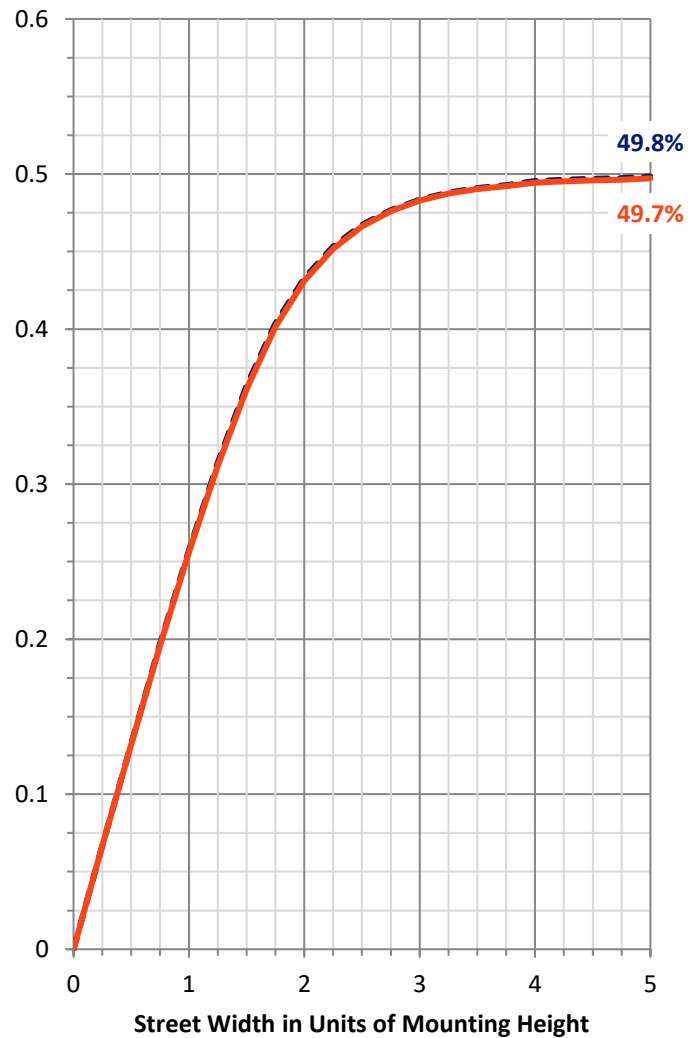
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1419.2	0.0	1419.2
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	1419.2	0.0	1419.2
	% Fixture	50.0	0.0	50.0
Total	Lumens	2838.4	0.0	2838.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	19.2	0.7
10°-20°	65.5	2.3
20°-30°	125.2	4.4
30°-40°	238.4	8.4
40°-50°	410.6	14.5
50°-60°	733.7	25.8
60°-70°	893.7	31.5
70°-80°	318.3	11.2
80°-90°	33.8	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°	2838.4	100.0
0°-180°	2838.4	100.0



--- HS — SS

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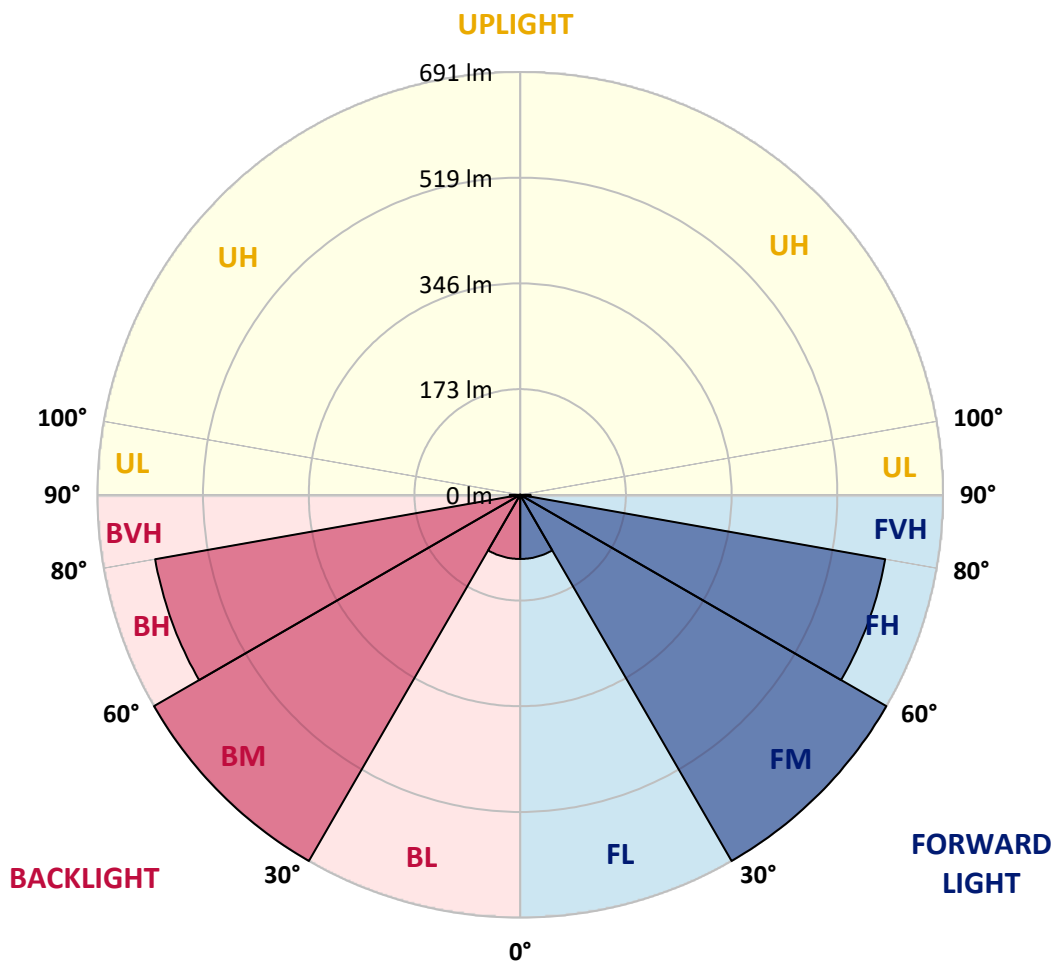
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	104.9	3.7			
FM (30°-60°)	691.4	24.4			
FH (60°-80°)	606.0	21.4			G0/660
FVH (80°-90°)	16.9	0.6			G1/100
BL (0°-30°)	104.9	3.7	B0/110		
BM (30°-60°)	691.4	24.4	B1/1000		
BH (60°-80°)	606.0	21.4	B2/1000		G0/660
BVH (80°-90°)	16.9	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°	190.5	190.5	190.5	190.5	190.5	190.5	190.5	190.5	190.5	190.5	190.5
2.5°	192.0	191.8	192.0	191.6	191.6	191.4	191.4	191.4	191.1	191.4	191.1
5°	196.0	195.8	196.0	195.6	195.6	195.3	195.3	195.3	194.9	195.3	195.1
7.5°	202.9	203.3	202.9	202.6	202.6	202.2	202.0	202.0	201.9	201.7	202.0
10°	212.6	213.0	212.4	212.1	211.9	211.7	211.3	211.2	211.2	210.4	210.6
12.5°	222.9	222.9	222.3	222.1	222.1	221.8	221.0	220.8	220.8	220.5	220.1
15°	232.0	232.0	231.6	230.9	231.1	230.5	230.0	229.6	229.6	229.3	228.9
17.5°	240.4	240.4	239.8	239.1	238.7	238.6	237.8	237.5	237.5	237.1	236.7
20°	248.8	249.2	248.2	247.5	246.8	246.1	245.3	245.0	244.4	244.6	244.4
22.5°	258.8	259.0	257.6	256.7	255.2	254.3	253.2	252.8	252.1	252.1	252.5
25°	271.6	271.4	269.8	268.2	266.5	264.7	263.0	262.7	261.9	261.8	261.9
27.5°	288.4	288.3	286.2	284.1	281.9	279.1	277.1	276.0	275.5	274.7	275.1
30°	309.1	309.4	307.1	304.5	301.8	298.5	295.9	294.5	293.4	292.6	293.0
32.5°	351.1	350.7	347.1	341.6	335.7	328.1	321.9	319.3	317.3	316.6	317.1
35°	393.3	392.9	391.5	389.8	388.4	383.4	378.9	373.6	369.2	366.4	367.2
37.5°	413.2	413.2	412.1	411.7	411.7	414.7	418.3	424.9	430.0	430.4	428.7
40°	444.3	444.3	442.4	441.5	441.0	441.9	444.3	446.6	449.2	449.7	447.9
42.5°	480.8	479.1	477.9	476.0	475.9	476.8	479.3	482.2	484.8	487.0	483.2
45°	520.2	518.8	517.5	516.4	517.1	519.5	523.0	528.1	531.8	535.0	531.9
47.5°	564.3	561.2	562.4	561.3	563.2	567.9	574.1	581.8	585.6	591.5	586.6
50°	619.1	619.8	619.1	619.1	621.3	627.5	636.6	647.0	653.6	656.9	654.0
52.5°	700.5	698.3	693.4	694.9	697.8	707.7	719.5	734.2	742.6	750.4	741.3
55°	789.7	790.0	789.3	791.3	797.0	807.0	822.0	844.1	854.7	868.4	857.5
57.5°	863.5	866.0	870.4	876.5	888.7	905.5	934.9	968.7	996.8	1011.6	994.5
60°	887.4	890.0	900.6	917.4	940.4	974.7	1022.4	1080.3	1130.9	1157.2	1134.7
62.5°	841.4	846.1	861.8	885.0	923.0	976.7	1047.6	1133.3	1211.3	1247.3	1220.1
63°	826.4	831.7	847.8	871.3	910.1	966.1	1042.7	1134.4	1216.9	1254.9	1225.5
65°	759.9	763.4	780.4	807.2	850.3	908.8	993.9	1102.4	1196.5	1240.5	1209.3
67.5°	655.2	659.8	675.3	698.5	740.4	802.3	885.9	994.1	1086.7	1122.0	1095.3
70°	525.5	530.7	543.4	565.0	597.9	655.2	726.8	827.9	897.5	925.0	896.5
72.5°	369.4	371.6	380.9	403.5	428.2	473.8	530.7	609.2	676.1	694.1	666.7
75°	156.4	156.5	168.8	183.2	214.1	259.6	309.1	376.7	436.8	464.9	430.2
77.5°	50.1	50.6	54.1	59.4	69.6	89.9	126.4	163.5	218.7	245.3	212.8
80°	41.8	42.6	44.0	45.1	45.9	46.9	51.1	57.0	71.8	83.5	67.4
82.5°	36.0	37.3	40.6	41.8	42.6	42.9	43.5	43.3	42.4	42.0	42.2
85°	27.4	30.5	34.2	37.1	37.4	37.6	38.7	39.1	36.2	33.2	36.2
87.5°	11.9	15.3	23.6	26.1	25.6	23.7	25.4	26.9	24.5	17.9	23.9
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°	190.5	190.5	190.5	190.5	190.5	190.5	190.5	190.5
2.5°	191.3	191.6	191.6	191.6	191.6	191.8	192.0	191.8
5°	195.3	195.6	195.5	195.6	195.6	195.8	196.0	195.8
7.5°	202.2	202.2	202.2	202.6	202.6	202.9	202.9	202.9
10°	210.8	210.6	210.6	211.0	211.3	211.5	211.9	211.7
12.5°	220.1	219.8	219.9	220.3	220.7	220.8	221.2	221.0
15°	228.5	228.3	228.3	228.9	229.1	229.3	230.0	230.0
17.5°	236.6	236.6	236.6	237.3	237.5	238.2	238.7	238.7
20°	244.6	244.6	244.6	245.3	245.9	247.0	248.1	247.9
22.5°	252.8	253.0	253.4	254.1	255.4	257.0	257.9	257.9
25°	263.0	263.8	264.5	265.6	267.4	269.6	271.1	271.6
27.5°	276.2	277.8	279.7	281.3	283.3	286.1	288.1	288.4
30°	294.1	296.5	299.4	301.6	304.1	307.3	309.6	310.9
32.5°	319.5	325.3	329.2	337.0	341.8	347.1	351.5	353.3
35°	371.7	377.6	382.7	388.0	389.1	390.9	393.3	393.8
37.5°	423.4	418.7	414.1	413.9	412.7	413.0	413.7	414.7
40°	445.9	444.4	442.1	443.0	443.2	443.2	444.6	444.8
42.5°	482.1	478.6	475.9	478.0	478.4	478.8	480.2	481.9
45°	528.1	522.8	519.3	518.1	519.3	519.0	521.0	521.3
47.5°	580.7	573.8	565.9	563.4	562.6	561.0	564.5	564.1
50°	645.2	634.0	624.5	620.9	619.1	618.2	619.1	619.1
52.5°	726.8	715.7	702.7	698.5	697.1	699.1	696.2	699.3
55°	839.2	821.1	803.4	797.7	796.8	795.9	796.3	797.5
57.5°	965.6	933.4	909.7	895.8	886.9	882.5	877.7	877.0
60°	1087.6	1029.2	984.0	953.4	931.6	915.2	906.8	903.9
62.5°	1146.4	1060.9	990.8	938.6	906.2	879.4	864.6	860.7
63°	1148.1	1056.9	982.6	927.4	889.8	865.7	850.0	845.9
65°	1117.6	1013.8	926.7	866.0	826.2	801.0	781.6	777.4
67.5°	1006.5	905.9	816.7	755.2	712.0	691.8	670.4	669.9
70°	826.0	736.2	661.1	604.5	568.5	548.4	526.6	527.2
72.5°	603.9	524.1	472.4	428.2	390.2	371.2	350.7	352.7
75°	363.5	292.3	245.7	207.3	168.2	144.9	129.1	120.2
77.5°	155.5	106.3	76.4	60.6	51.1	47.3	45.5	44.9
80°	54.1	47.9	45.1	44.4	43.8	43.1	41.8	40.6
82.5°	43.8	43.8	42.4	42.2	40.6	39.3	36.0	34.3
85°	38.9	38.2	36.9	36.4	36.0	33.2	29.0	26.9
87.5°	25.8	23.9	22.8	23.4	22.7	20.3	12.4	9.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)