

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: PORTFOLIO

Report Number: P843510

Luminaire Tested: **LD4C25DE010B2750 EU4C25B30 4LBLWWH**

Issue Date: 5/7/2024



Test Information

Test Method: LM-79-08
Report Number: P843510
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2107-320-2)
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C25DE010B2750 EU4C25B30 4LBLWWH
Description: 4in Downlight with BioUp LEDs
Light Source: -
Ballast/Driver:

Summary

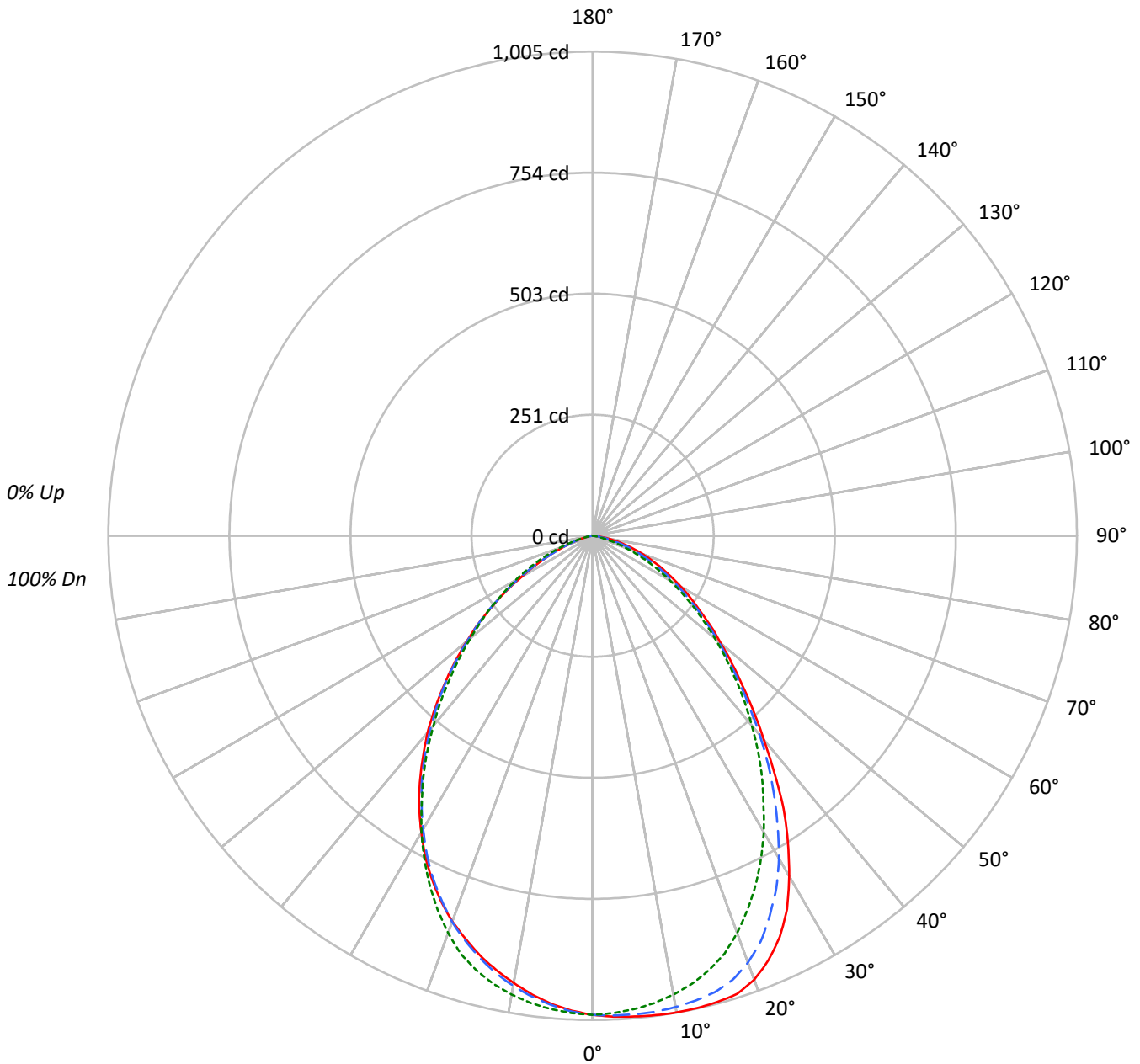
Lumens per Lamp: N/A
Luminaire Lumens: 1874.1 lumens
Efficiency: N/A
Efficacy: 62.9 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.09 / 1.17
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 29.8
Input Voltage (V):
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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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				
RC	80				70				50				30				10			0	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	88			
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77			
3	95	86	79	74	93	85	78	73	82	76	72	79	75	71	77	73	70	68			
4	88	78	70	64	86	77	69	64	74	68	63	72	67	62	70	65	62	60			
5	82	71	63	57	80	69	62	57	67	61	56	66	60	55	64	59	55	53			
6	76	64	56	51	74	63	56	50	62	55	50	60	54	50	59	53	49	47			
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	44	43			
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	40	39			
9	62	50	43	38	61	50	42	37	49	42	37	47	41	37	47	41	37	35			
10	59	47	39	34	58	46	39	34	45	39	34	44	38	34	43	38	34	32			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	122178	122178	122178
5°	123532	121658	120326
10°	125347	120620	117576
15°	127403	118704	114761
20°	128202	114657	111363
25°	124547	108470	106803
30°	115743	100805	100862
35°	103589	91891	93840
40°	88687	82384	85383
45°	76342	72641	75351
50°	66378	63225	65136
55°	58409	54382	53911
60°	51967	45407	41819
65°	45581	36366	30261
70°	39153	25683	20474
75°	31755	14905	12009
80°	22781	6509	6014
85°	8598	2678	2678



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.7	5.0
10°-20°	265.3	14.2
20°-30°	378.8	20.2
30°-40°	396.3	21.1
40°-50°	332.1	17.7
50°-60°	232.4	12.4
60°-70°	126.5	6.8
70°-80°	43.9	2.3
80°-90°	5.0	0.3
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°-30°	737.9	39.4
0°-40°	1134.2	60.5
0°-60°	1698.6	90.6
0°-90°	1874.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1874.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	994	994	994	994	994	
5°	1002	997	986	978	976	96
15°	1002	981	933	906	902	283
25°	919	870	800	784	788	420
35°	691	657	613	617	626	428
45°	439	430	418	432	434	342
55°	273	264	254	254	252	246
65°	157	143	125	105	104	156
75°	67	54	31	25	25	72
85°	6	4	2	2	2	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	994.5	994.5	994.5	994.5	994.5	994.5	994.5	994.5	994.5	994.5	994.5
2.5°	999.0	997.9	998.3	998.3	998.3	997.9	998.3	997.9	997.9	997.6	996.7
5°	1001.7	1000.9	1000.9	1000.9	1000.6	1000.2	1000.2	999.8	999.0	998.6	997.1
7.5°	1003.6	1002.8	1002.8	1002.5	1002.1	1001.7	1001.4	1000.2	999.0	998.3	996.4
10°	1004.8	1003.6	1003.6	1002.8	1002.1	1001.7	1000.9	999.5	997.9	996.0	993.3
12.5°	1004.0	1002.8	1002.5	1001.7	1000.2	999.5	998.6	996.7	994.1	991.4	987.9
15°	1001.7	1000.9	1000.2	999.0	997.1	996.0	995.2	992.2	988.7	984.9	980.6
17.5°	997.1	996.0	994.5	992.9	990.3	989.1	987.2	983.4	978.4	973.0	966.6
20°	980.6	979.9	978.4	975.7	971.5	970.0	967.3	962.3	955.8	949.3	942.5
22.5°	953.6	952.4	950.1	947.7	943.9	941.3	939.0	932.1	924.8	917.9	911.5
25°	918.8	917.6	914.5	911.5	907.7	903.0	900.8	895.4	888.1	879.3	869.8
27.5°	873.9	870.1	869.0	865.6	859.9	858.3	854.9	848.0	841.0	833.4	825.4
30°	815.9	815.9	813.5	812.1	806.7	805.2	801.3	794.1	790.3	779.5	773.3
32.5°	754.3	753.5	751.6	750.4	747.3	744.7	740.9	737.1	728.6	723.3	714.9
35°	690.7	686.2	686.9	684.6	682.7	679.6	679.3	675.1	667.5	664.4	656.7
37.5°	618.5	616.6	619.2	615.8	613.9	614.3	611.2	608.6	605.5	600.1	598.6
40°	553.0	554.6	554.2	551.1	552.7	550.8	547.7	545.0	543.5	540.0	539.0
42.5°	494.5	492.2	491.5	491.5	491.9	491.9	490.3	488.4	488.4	485.0	481.5
45°	439.4	439.4	438.7	441.0	437.5	437.5	436.4	436.1	434.5	433.7	429.5
47.5°	392.1	391.6	391.3	390.9	390.5	390.5	388.3	386.4	385.9	383.6	381.4
50°	347.3	349.5	348.8	346.9	346.2	346.5	345.0	343.8	343.5	339.6	340.0
52.5°	309.8	309.5	310.2	309.0	307.1	307.6	306.0	304.5	302.9	301.0	299.5
55°	272.7	274.7	273.8	272.7	272.3	271.6	270.4	268.5	268.1	263.9	263.6
57.5°	241.8	241.4	240.6	238.7	238.3	237.1	237.1	235.6	233.3	231.0	229.1
60°	211.5	211.5	210.4	209.9	208.5	208.0	207.7	206.1	203.5	201.6	198.5
62.5°	182.4	183.2	182.4	181.3	180.1	178.6	177.9	176.7	174.4	172.5	169.9
65°	156.8	156.4	156.0	154.5	154.1	152.6	152.2	150.0	147.6	146.1	143.1
67.5°	132.3	131.1	131.1	130.4	129.7	128.5	127.8	125.4	122.8	121.2	118.1
70°	109.0	108.2	108.2	108.2	106.3	105.2	104.8	103.6	99.8	98.3	95.2
72.5°	87.6	87.3	86.8	85.7	84.5	84.5	83.0	80.7	78.8	76.9	74.6
75°	66.9	67.7	66.9	65.4	65.0	64.3	63.1	61.2	59.3	57.0	54.4
77.5°	49.0	48.2	47.4	47.4	46.6	45.2	44.7	43.3	40.9	39.3	36.7
80°	32.2	31.7	31.0	30.2	29.8	29.4	29.1	27.5	25.3	24.1	21.8
82.5°	17.6	17.2	17.2	16.8	15.7	15.7	15.3	13.7	12.6	11.8	10.7
85°	6.1	6.1	6.1	5.7	5.7	5.7	5.4	5.0	4.5	4.2	3.5
87.5°	0.7	0.4	0.7	0.4	0.7	0.4	0.4	0.4	0.4	0.4	0.4
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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	994.5	994.5	994.5	994.5	994.5	994.5	994.5	994.5	994.5	994.5	994.5
2.5°	996.0	995.2	994.8	994.5	994.1	993.6	993.3	992.6	992.2	991.7	991.0
5°	996.0	994.5	993.6	992.6	991.7	991.0	989.8	988.7	987.6	986.5	985.3
7.5°	994.5	992.2	990.6	988.4	987.6	986.5	984.1	982.6	980.6	978.4	975.7
10°	990.6	987.9	984.9	981.8	980.6	978.7	975.7	973.0	970.0	966.9	964.2
12.5°	984.6	980.3	976.5	972.3	970.0	968.1	963.8	960.0	956.2	952.7	948.2
15°	975.3	970.4	965.4	959.7	956.9	954.7	948.6	943.9	937.8	933.3	928.7
17.5°	960.4	952.7	946.7	939.4	935.6	932.8	927.5	920.2	914.5	909.6	904.2
20°	934.8	927.5	919.1	911.0	906.9	903.4	895.8	888.1	882.4	877.0	871.3
22.5°	901.1	891.9	885.9	875.9	872.4	868.2	859.0	852.1	845.7	840.3	835.0
25°	860.2	852.1	843.8	834.6	830.3	825.4	817.8	810.5	806.2	800.2	793.6
27.5°	813.1	806.7	796.3	788.3	784.1	780.2	773.0	766.5	760.3	756.2	750.1
30°	763.4	755.8	746.6	738.2	735.9	731.4	724.8	719.8	713.4	710.6	708.0
32.5°	708.7	699.9	693.1	687.7	683.1	679.3	675.8	667.8	666.6	659.8	659.0
35°	649.1	645.3	638.7	634.2	630.3	627.7	621.9	618.1	613.9	612.7	610.0
37.5°	592.8	588.3	582.1	577.9	575.2	574.8	570.7	568.4	565.3	563.8	560.8
40°	534.0	532.0	526.7	526.0	521.7	521.3	519.0	516.3	513.7	513.7	514.0
42.5°	479.6	477.3	475.1	472.3	470.1	470.1	469.0	468.1	467.4	466.2	468.1
45°	428.8	425.7	424.2	421.5	422.6	420.3	419.6	419.6	418.4	418.1	420.7
47.5°	381.4	377.9	376.4	375.6	375.6	376.0	372.5	373.7	373.3	374.1	375.2
50°	338.1	335.1	332.7	332.7	333.2	331.6	330.1	331.3	330.1	330.8	333.6
52.5°	297.9	294.9	293.7	293.7	291.5	291.1	291.8	290.3	290.6	291.1	292.6
55°	260.8	258.9	257.0	255.1	255.5	254.8	253.2	252.8	253.6	253.9	255.8
57.5°	227.6	224.9	222.2	221.5	220.7	220.7	218.8	218.4	219.1	217.2	217.2
60°	195.9	194.3	190.9	189.7	189.7	187.8	186.2	187.0	185.1	184.8	185.1
62.5°	166.4	165.2	163.0	160.7	159.9	159.1	157.2	156.4	155.7	154.1	151.9
65°	140.8	138.1	135.4	133.9	132.7	130.8	129.7	128.1	125.9	125.1	122.8
67.5°	115.2	112.4	109.8	108.6	107.5	106.3	104.4	102.5	99.8	96.8	94.1
70°	92.5	89.2	87.6	84.5	83.8	82.3	79.5	77.6	75.0	71.5	68.9
72.5°	70.8	68.4	66.2	63.5	61.6	60.4	58.2	55.1	52.0	50.1	47.4
75°	50.9	49.7	46.6	43.6	42.8	41.4	38.6	36.7	34.4	31.4	29.1
77.5°	34.4	32.2	30.2	27.5	26.8	25.3	23.7	21.8	20.3	18.4	16.8
80°	20.3	18.4	17.2	15.3	14.5	13.7	12.6	11.1	9.9	9.2	8.8
82.5°	9.9	8.5	8.0	6.9	6.5	6.1	5.4	5.0	4.2	4.2	4.2
85°	3.5	2.6	2.6	2.3	1.9	1.9	1.9	1.9	1.9	1.9	1.9
87.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.7	0.4
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):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	994.5	994.5	994.5	994.5	994.5	994.5	994.5	994.5	994.5	994.5	994.5
2.5°	990.6	990.3	989.8	989.5	989.5	989.1	989.1	988.7	988.7	988.4	988.4
5°	983.7	982.6	981.8	981.1	981.1	979.9	979.2	978.4	978.0	978.0	977.3
7.5°	974.2	972.7	971.1	970.0	969.6	967.7	966.1	966.1	964.7	963.8	963.1
10°	961.6	958.9	956.6	955.5	953.9	952.7	950.8	949.8	948.6	946.7	946.3
12.5°	944.4	942.5	939.0	937.5	936.7	934.4	931.4	929.8	929.4	927.9	926.8
15°	924.8	920.7	917.6	915.7	915.7	911.9	910.3	908.0	906.5	905.3	904.9
17.5°	899.6	895.4	892.3	889.7	888.9	885.9	883.5	882.8	880.9	881.6	879.7
20°	867.0	863.7	861.3	858.0	858.0	856.0	855.2	853.3	852.6	851.8	852.6
22.5°	832.3	828.1	824.2	823.9	823.9	821.1	820.8	820.4	818.9	820.1	819.7
25°	791.3	788.3	786.0	785.6	785.6	784.1	782.5	783.3	784.4	784.1	785.2
27.5°	748.9	745.8	745.1	744.7	743.9	743.5	744.4	744.4	745.4	747.0	748.5
30°	703.0	702.3	701.1	700.7	699.9	701.8	702.6	703.7	703.4	705.7	707.2
32.5°	657.1	655.6	655.2	655.9	657.1	656.7	659.0	659.8	660.6	663.2	664.4
35°	610.8	610.5	609.7	609.7	610.0	613.1	613.1	615.8	617.3	618.1	621.1
37.5°	561.1	562.7	563.4	564.6	564.9	566.0	566.9	569.5	571.0	572.6	574.1
40°	515.6	514.9	518.2	516.0	516.8	520.1	521.7	521.3	523.6	526.0	527.4
42.5°	467.1	468.1	469.0	469.7	471.6	472.0	473.9	476.6	477.3	480.1	480.8
45°	420.0	420.3	421.9	423.4	424.5	427.6	428.3	429.5	431.8	431.8	433.0
47.5°	375.6	377.2	377.2	379.4	381.4	381.0	383.6	384.3	384.0	385.9	386.7
50°	333.2	335.5	335.1	336.5	337.4	337.7	340.0	340.8	339.3	341.2	341.5
52.5°	292.6	293.7	295.3	295.6	294.9	296.8	296.0	297.6	297.2	298.7	297.2
55°	255.5	255.1	255.1	255.8	255.1	255.8	256.7	255.1	253.9	255.5	255.1
57.5°	218.4	218.4	217.7	218.8	217.7	216.5	216.1	214.9	213.9	213.9	213.4
60°	183.6	182.9	181.3	181.0	181.0	179.0	178.2	176.7	176.7	175.1	173.7
62.5°	151.0	149.1	148.1	148.1	147.2	145.3	141.9	139.6	138.9	136.5	136.1
65°	120.5	118.6	117.4	115.2	113.2	112.4	109.0	106.3	105.2	102.9	103.2
67.5°	92.5	89.5	86.1	84.5	83.3	80.7	79.5	77.6	76.5	76.5	76.5
70°	66.5	63.9	60.4	59.3	58.5	56.3	55.1	54.7	55.8	55.4	55.8
72.5°	44.7	42.1	40.5	39.8	39.0	37.9	38.6	39.0	38.3	38.6	39.0
75°	27.2	26.4	25.3	24.9	24.9	25.3	24.9	24.9	25.3	25.3	25.6
77.5°	15.7	14.9	14.9	14.5	15.3	14.9	14.9	14.9	15.3	15.3	15.3
80°	8.5	8.5	8.5	8.5	8.8	8.5	8.8	8.8	8.8	8.8	8.8
82.5°	4.2	4.2	4.2	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.2
85°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
87.5°	0.4	0.7	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.4
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):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	994.5	994.5	994.5	994.5	994.5	994.5	994.5	994.5
2.5°	987.6	987.6	987.6	986.8	987.2	987.2	986.8	986.8
5°	976.8	976.5	975.7	975.7	974.9	975.7	975.3	975.7
7.5°	962.3	962.3	961.2	961.2	960.8	960.4	960.0	960.4
10°	945.1	945.1	944.4	943.9	944.4	942.8	942.8	942.5
12.5°	926.0	925.2	924.5	924.8	924.5	923.3	922.9	923.3
15°	903.9	902.7	903.0	901.8	901.8	901.5	902.3	902.3
17.5°	879.3	878.6	877.8	878.2	877.4	877.8	877.4	877.0
20°	852.1	851.8	851.8	850.2	850.7	850.2	850.7	851.8
22.5°	820.8	820.4	820.8	819.7	820.4	820.4	821.6	821.6
25°	786.4	786.0	786.8	787.2	787.5	788.7	787.5	787.9
27.5°	748.2	749.3	750.4	750.8	752.3	751.2	750.4	751.6
30°	709.5	709.5	709.1	710.6	711.8	713.0	711.0	711.0
32.5°	665.1	667.0	667.0	667.5	668.5	668.5	668.5	670.1
35°	622.7	623.8	624.2	622.7	623.5	623.1	625.7	625.7
37.5°	575.2	575.2	575.7	578.3	578.3	577.2	577.9	577.9
40°	530.1	530.5	528.9	529.8	531.7	530.9	531.7	532.4
42.5°	480.8	483.4	482.0	482.7	482.3	482.7	483.1	483.1
45°	433.7	434.5	434.5	434.9	435.6	436.4	434.2	433.7
47.5°	387.8	388.3	389.4	387.4	389.7	387.4	389.7	387.1
50°	341.5	343.1	341.9	342.7	341.5	341.5	341.2	340.8
52.5°	297.6	297.2	297.2	296.8	296.8	297.6	296.8	297.9
55°	253.6	253.9	253.2	252.8	252.5	253.6	252.5	251.7
57.5°	211.8	212.7	211.1	211.8	209.2	210.4	210.8	211.1
60°	173.2	172.1	172.1	170.6	170.6	171.8	170.2	170.2
62.5°	134.2	135.1	133.9	135.4	135.4	137.0	136.1	137.0
65°	102.9	103.2	103.6	103.6	103.6	106.0	105.2	104.1
67.5°	77.6	78.1	78.4	78.1	79.2	78.4	78.4	78.8
70°	56.3	56.6	57.0	57.0	56.6	57.0	57.0	57.0
72.5°	39.0	39.3	39.0	39.3	39.8	39.3	39.3	39.8
75°	25.6	25.6	25.3	25.3	25.3	25.3	25.6	25.3
77.5°	14.9	15.3	14.9	15.3	15.3	15.3	15.3	15.3
80°	8.8	8.8	8.8	8.5	8.8	8.8	8.8	8.5
82.5°	4.5	4.5	4.2	4.2	4.5	4.5	4.5	4.5
85°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
87.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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— 0°-180° - - 45°-225° - - - - 90°-270°













(END OF REPORT)