

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: P857185

Luminaire Tested: **LX4C20D010 EX4C209040 4LBLWW***

Issue Date: 2/9/2022



Test Information

Test Method: LM-79-08
Report Number: P857185
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2107-320-1)
Test Lab: INNOVATION CENTER
Issue Date: 2/9/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LX4C20D010 EX4C209040 4LBLWW*
Description: 4 INCH 2000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS
AND 4LRLWW TRIM WITH * FINISH
Light Source: -
Ballast/Driver: -

Summary

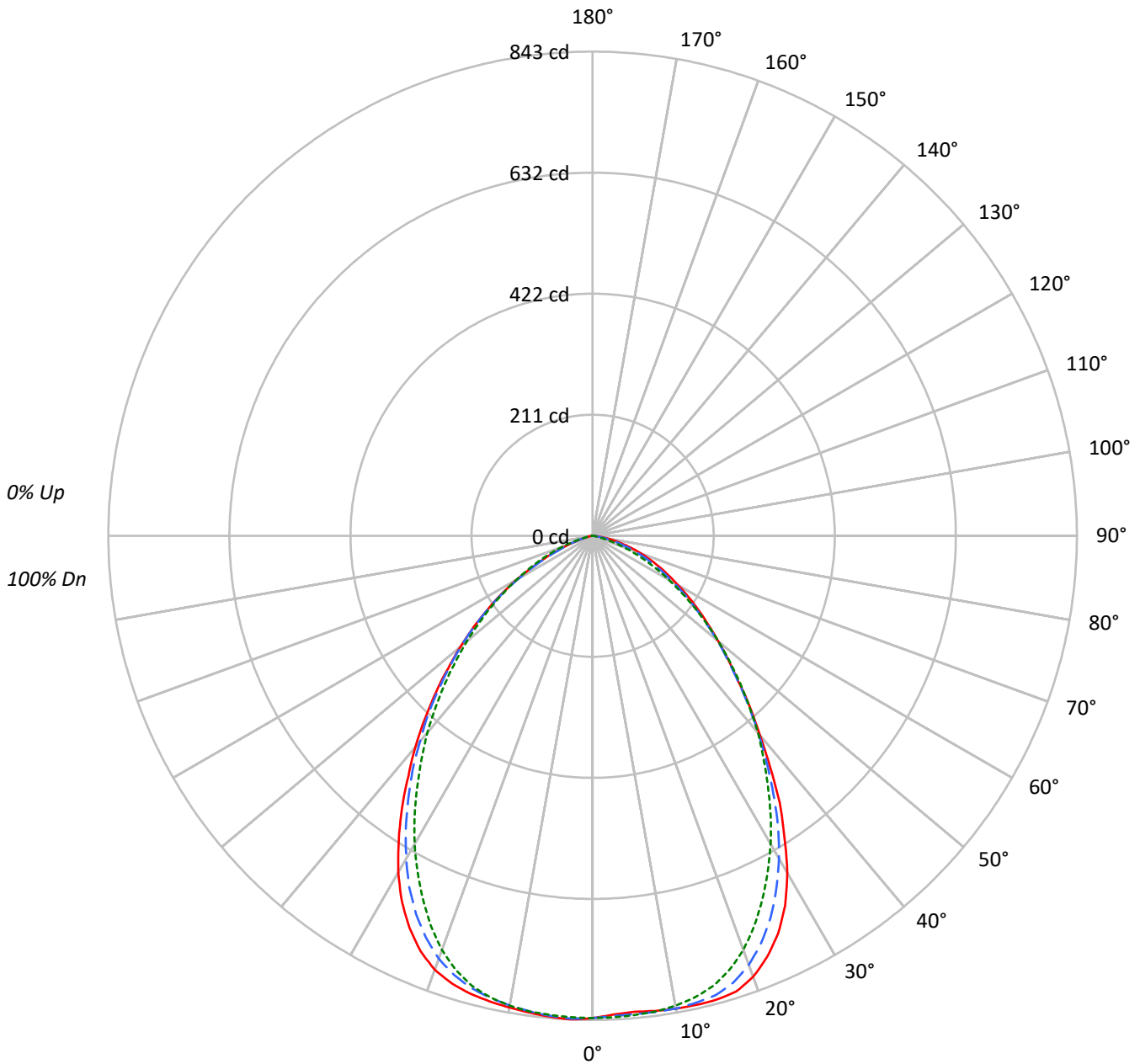
Lumens per Lamp: N/A
Luminaire Lumens: 1610.0 lumens
Efficiency: N/A
Efficacy: 73.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.12 / 1.18
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 21.8
Input Voltage (V):
Input Current (A_{in}): 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			100
1	111	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	89			89
2	103	96	91	86	101	95	89	85	91	87	83	88	84	81	85	82	80	78			78
3	95	87	80	74	93	85	79	74	82	77	72	80	75	71	77	73	70	68			68
4	88	78	71	65	86	77	70	65	75	69	64	72	67	63	70	66	62	60			60
5	82	71	63	57	80	70	63	57	68	61	57	66	60	56	64	59	55	54			54
6	76	65	57	51	75	64	56	51	62	56	51	61	55	50	59	54	50	48			48
7	71	59	51	46	70	59	51	46	57	50	46	56	50	45	54	49	45	43			43
8	67	55	47	42	65	54	47	42	53	46	41	52	46	41	50	45	41	39			39
9	63	51	43	38	61	50	43	38	49	42	38	48	42	38	47	41	37	36			36
10	59	47	40	35	58	46	39	35	45	39	35	45	39	35	44	38	34	33			33

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	103172	103172	103172
5°	102592	103295	103677
10°	104290	103654	104053
15°	106329	103200	104930
20°	106865	100302	105087
25°	103577	94725	102167
30°	96138	87910	95953
35°	85127	79742	86731
40°	72569	71815	76915
45°	62356	63068	67012
50°	54433	54547	57433
55°	48085	46072	47614
60°	42139	37569	37421
65°	37296	29157	25930
70°	31825	20043	15410
75°	25727	10775	7025
80°	17616	2688	1769
85°	5356	846	846



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.8	5.0
10°-20°	231.0	14.4
20°-30°	333.8	20.7
30°-40°	345.1	21.4
40°-50°	285.2	17.7
50°-60°	196.8	12.2
60°-70°	103.0	6.4
70°-80°	32.4	2.0
80°-90°	2.8	0.2
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°-30°	644.7	40.0
0°-40°	989.8	61.5
0°-60°	1471.8	91.4
0°-90°	1610.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1610.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	840	840	840	840	840	
5°	832	836	838	839	841	80
15°	836	828	811	815	825	236
25°	764	733	699	727	754	349
35°	568	549	532	559	578	352
45°	359	357	363	380	386	280
55°	224	218	215	221	222	202
65°	128	116	100	83	89	127
75°	54	43	23	16	15	58
85°	4	2	1	1	1	8
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°	839.8	839.8	839.8	839.8	839.8	839.8	839.8	839.8	839.8	839.8	839.8
2.5°	834.4	834.7	834.7	835.4	835.4	835.4	835.7	835.7	836.0	836.3	836.6
5°	831.9	831.9	832.5	832.8	833.5	833.8	834.4	834.7	835.4	835.7	836.0
7.5°	834.4	834.4	834.7	835.0	835.0	835.4	835.4	835.7	836.0	836.3	836.3
10°	836.0	836.0	836.0	836.0	836.3	836.3	836.3	836.0	836.0	836.0	835.7
12.5°	836.6	836.6	836.3	836.0	836.3	836.0	836.0	835.0	834.4	833.8	832.8
15°	836.0	836.0	835.7	835.4	835.0	834.4	834.1	832.5	831.3	829.4	828.1
17.5°	831.9	831.3	830.6	830.0	828.7	827.8	827.2	824.3	822.1	819.0	815.5
20°	817.4	816.8	815.8	814.2	812.7	811.4	809.5	805.4	803.2	798.5	795.0
22.5°	793.7	793.1	793.4	790.6	787.4	785.5	784.3	780.8	777.0	771.0	767.2
25°	764.1	762.2	762.2	757.8	756.2	754.9	753.4	749.3	743.6	738.2	733.2
27.5°	725.6	723.1	721.8	721.2	717.4	714.6	712.4	709.2	704.5	699.8	692.8
30°	677.7	677.4	675.8	673.0	670.1	668.9	666.3	661.0	656.6	653.1	648.7
32.5°	621.2	620.9	620.9	620.9	619.0	618.7	614.9	612.1	608.6	603.3	600.4
35°	567.6	567.3	567.6	562.9	561.6	560.7	560.4	558.5	553.8	551.2	548.7
37.5°	507.1	508.0	507.4	506.1	507.7	504.9	507.1	503.0	501.1	500.5	497.6
40°	452.5	455.0	452.5	452.8	454.4	451.6	451.6	450.9	449.7	449.1	448.4
42.5°	405.9	402.7	404.6	403.0	404.6	403.6	402.1	403.0	403.3	402.1	401.8
45°	358.9	359.5	360.1	359.2	359.2	358.2	360.8	359.2	359.2	359.5	357.3
47.5°	320.7	319.8	320.4	319.8	320.1	319.4	320.1	320.4	319.8	319.8	317.9
50°	284.8	284.1	286.3	284.4	284.4	284.1	284.4	283.8	282.9	282.9	283.5
52.5°	253.5	252.3	252.0	253.5	251.3	251.3	251.6	251.0	249.8	249.1	247.5
55°	224.5	224.2	224.5	223.3	222.6	222.6	221.1	220.4	220.1	218.5	217.6
57.5°	197.4	196.5	196.8	196.5	195.2	194.9	193.6	193.6	192.4	191.1	189.5
60°	171.5	171.5	172.5	171.2	170.3	169.7	169.0	168.4	166.2	164.0	162.1
62.5°	148.5	148.8	148.5	147.6	147.0	146.3	145.7	143.8	141.9	140.6	138.4
65°	128.3	128.0	127.1	126.5	124.9	124.9	123.6	122.7	120.5	118.6	116.4
67.5°	107.5	106.9	106.9	106.9	105.0	104.7	104.1	102.2	100.3	97.8	95.9
70°	88.6	89.2	88.3	87.4	86.4	86.1	85.1	83.3	81.0	78.5	76.9
72.5°	70.6	71.3	70.3	70.0	68.1	67.5	67.2	65.6	63.1	61.5	59.0
75°	54.2	54.6	53.9	53.3	52.0	51.7	50.1	48.9	47.3	44.8	42.6
77.5°	39.1	38.5	38.5	37.2	35.9	35.9	35.6	33.7	31.5	29.6	27.8
80°	24.9	24.6	23.7	23.0	22.1	21.8	21.4	19.9	18.3	17.0	15.8
82.5°	12.6	12.3	12.0	11.7	11.0	10.4	10.7	9.5	8.8	7.6	6.6
85°	3.8	4.1	4.1	3.8	3.5	3.5	3.5	3.2	2.5	2.2	1.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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°	839.8	839.8	839.8	839.8	839.8	839.8	839.8	839.8	839.8	839.8	839.8
2.5°	836.9	837.3	837.6	837.9	837.9	838.2	838.5	838.8	839.1	839.1	839.5
5°	836.3	836.9	836.9	837.3	837.3	837.3	837.6	837.6	837.6	837.6	837.9
7.5°	836.6	836.6	836.6	836.3	836.3	836.0	836.0	836.0	835.4	835.4	835.4
10°	835.0	834.7	834.4	833.8	833.5	833.2	832.5	831.9	831.3	830.9	830.3
12.5°	831.9	830.6	829.4	828.1	827.5	827.2	825.9	825.0	824.0	823.1	822.4
15°	825.6	823.7	821.5	819.0	818.3	817.7	815.5	813.6	812.3	811.4	809.8
17.5°	813.0	809.2	806.7	802.9	801.3	800.7	797.2	795.3	793.1	792.5	791.2
20°	790.6	787.1	782.4	778.9	777.0	775.1	772.3	769.8	767.2	767.2	765.7
22.5°	762.5	758.1	752.1	747.7	747.4	743.6	741.1	738.2	737.3	735.4	735.4
25°	727.2	723.4	716.8	713.0	711.1	710.2	706.1	702.3	700.4	698.8	700.1
27.5°	688.1	682.4	677.4	672.6	671.1	669.2	665.4	663.8	660.3	660.0	659.7
30°	643.3	637.6	632.6	630.4	627.2	625.7	622.8	620.9	619.7	619.7	619.0
32.5°	596.3	591.3	588.8	584.0	582.4	580.2	578.3	576.5	577.1	576.5	576.8
35°	545.6	544.3	539.6	536.7	536.7	536.4	533.3	532.0	531.4	531.7	533.3
37.5°	497.3	493.5	490.4	488.5	490.1	488.2	487.8	487.8	489.7	488.5	491.0
40°	445.9	445.6	444.3	445.0	445.3	443.1	443.7	444.0	445.3	447.8	448.1
42.5°	401.1	400.8	400.8	400.8	400.2	398.9	400.2	402.4	402.1	404.0	405.5
45°	357.9	357.3	358.6	357.6	359.5	360.1	359.2	359.8	361.7	363.0	365.5
47.5°	318.5	318.5	318.8	319.4	317.6	319.1	319.8	321.0	322.0	322.6	323.9
50°	281.9	281.9	281.3	281.3	281.3	282.2	281.0	282.6	282.9	285.4	287.0
52.5°	248.2	246.6	247.5	246.9	245.7	245.0	245.7	246.0	247.9	248.5	250.4
55°	216.0	216.0	213.5	212.9	213.8	213.5	213.2	213.2	214.1	215.1	216.6
57.5°	187.6	185.7	183.8	183.5	182.6	182.9	182.9	182.6	182.0	182.3	182.6
60°	160.8	159.6	156.7	156.7	156.4	156.1	154.5	154.2	152.6	152.9	151.7
62.5°	136.2	135.6	131.8	130.6	130.6	129.6	128.0	127.7	125.5	125.5	124.2
65°	114.2	112.3	110.1	107.8	107.8	106.6	105.6	102.8	101.2	100.3	98.4
67.5°	94.0	91.1	88.9	87.0	85.8	85.5	83.3	81.4	78.8	77.3	74.4
70°	74.4	72.2	70.0	68.1	66.9	65.6	63.4	60.5	58.7	55.8	53.9
72.5°	56.1	54.2	52.3	49.8	48.2	47.3	45.1	42.6	39.4	37.5	35.0
75°	40.4	38.2	35.6	33.4	32.5	31.5	29.0	27.1	24.9	22.7	20.2
77.5°	26.2	23.7	21.8	19.2	18.9	18.3	15.8	13.9	12.3	11.0	9.5
80°	13.9	12.6	11.0	9.5	8.8	7.9	6.6	5.7	4.7	3.8	3.2
82.5°	6.0	5.0	4.1	3.5	3.2	2.8	2.2	1.9	1.6	1.6	1.3
85°	1.6	1.3	1.3	0.9	0.6	0.6	0.6	0.6	0.6	0.6	0.6
87.5°	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.0	0.3	0.3	0.0
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°	839.8	839.8	839.8	839.8	839.8	839.8	839.8	839.8	839.8	839.8	839.8
2.5°	839.8	840.1	840.4	840.4	840.7	841.0	841.0	841.4	841.7	842.0	842.0
5°	838.2	838.2	838.2	838.5	838.5	838.5	838.5	839.1	839.1	839.5	839.8
7.5°	835.0	835.0	835.0	835.0	834.7	835.0	834.7	834.7	835.4	835.7	836.0
10°	830.0	829.7	829.7	829.4	829.4	829.4	829.7	830.0	830.3	830.6	831.6
12.5°	822.1	821.8	821.8	821.5	821.5	821.8	822.1	822.7	824.0	824.6	825.9
15°	809.5	809.2	809.5	809.8	810.4	811.4	812.3	813.3	815.2	816.8	818.3
17.5°	791.2	791.5	791.8	792.5	793.4	794.7	797.2	799.7	801.9	804.5	807.0
20°	766.0	767.2	767.6	769.8	770.4	773.2	776.1	779.9	783.3	786.5	789.9
22.5°	735.7	736.7	737.9	740.4	742.0	745.8	749.3	753.7	757.5	761.6	766.6
25°	701.3	701.7	705.4	705.4	709.2	712.4	716.5	721.2	726.9	732.2	735.7
27.5°	662.2	663.8	666.6	667.9	670.7	675.8	679.3	684.9	690.6	695.3	699.1
30°	621.2	622.5	627.2	627.9	630.1	634.5	639.2	644.6	649.0	654.3	657.8
32.5°	578.0	581.5	584.3	586.5	587.2	593.8	596.3	600.1	605.2	610.5	614.0
35°	536.1	537.7	541.8	543.0	544.9	548.7	553.8	556.9	559.4	562.9	567.0
37.5°	491.6	496.4	497.3	501.1	501.7	505.2	507.7	511.5	514.6	517.8	518.4
40°	450.3	451.9	455.4	456.3	456.9	461.7	464.8	465.8	467.3	470.2	474.0
42.5°	408.4	410.0	413.7	412.8	415.6	417.8	419.4	423.2	424.8	425.7	425.7
45°	367.1	367.7	370.2	371.5	373.1	374.3	377.2	379.0	379.7	382.5	383.5
47.5°	327.6	328.3	330.2	332.4	331.7	333.3	336.5	337.4	337.7	339.6	340.6
50°	288.9	290.4	293.0	292.3	294.2	295.2	298.0	298.6	298.6	299.0	299.3
52.5°	252.6	253.9	254.5	255.1	256.1	257.6	258.9	258.3	259.5	260.8	259.8
55°	216.6	217.6	219.2	219.8	219.8	220.1	219.5	222.3	221.1	220.7	221.1
57.5°	183.8	182.6	182.3	183.8	184.5	184.2	183.2	184.5	184.5	183.8	182.9
60°	152.0	151.1	150.7	151.1	149.8	148.8	149.5	148.8	147.3	146.6	147.0
62.5°	123.0	122.0	119.5	119.5	118.9	118.6	116.0	116.4	115.1	113.2	113.8
65°	96.2	93.7	92.4	92.1	89.9	88.0	87.4	85.1	83.3	82.9	83.3
67.5°	72.2	69.4	67.2	66.2	65.0	63.4	61.2	59.3	59.9	59.6	60.9
70°	50.1	48.2	46.0	44.5	45.1	43.2	41.9	41.9	42.3	42.6	43.2
72.5°	33.4	30.9	30.0	29.0	28.4	27.1	27.8	27.8	27.4	27.8	27.1
75°	18.9	17.7	16.7	16.4	15.8	15.8	15.8	15.8	15.5	15.1	15.1
77.5°	8.5	7.9	7.6	7.3	7.3	7.3	6.9	6.6	6.6	6.6	6.3
80°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
82.5°	1.3	1.3	1.6	1.6	1.6	1.3	1.6	1.6	1.3	1.3	1.6
85°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
87.5°	0.3	0.3	0.3	0.0	0.3	0.3	0.3	0.3	0.0	0.3	0.0
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°	839.8	839.8	839.8	839.8	839.8	839.8	839.8	839.8
2.5°	842.3	842.6	842.6	842.6	842.9	842.9	842.9	842.9
5°	840.1	840.4	840.4	840.4	840.7	840.7	840.7	840.7
7.5°	836.3	836.6	836.6	836.9	836.9	837.3	837.3	837.6
10°	831.9	832.5	832.8	833.2	833.5	833.8	833.8	834.1
12.5°	827.2	827.8	828.1	828.7	829.4	829.7	830.0	830.3
15°	820.2	821.5	822.1	822.4	823.7	824.3	824.6	825.0
17.5°	809.2	811.7	812.7	813.3	814.5	815.8	816.8	817.1
20°	793.4	796.3	797.5	799.1	801.0	802.6	803.2	803.8
22.5°	771.3	774.5	776.4	778.3	779.9	781.4	784.0	783.0
25°	739.8	745.2	747.4	748.3	751.8	753.7	754.9	753.7
27.5°	704.5	707.6	709.5	711.7	714.3	716.2	716.8	718.7
30°	661.9	667.3	667.0	669.2	672.3	674.2	674.8	676.4
32.5°	617.8	620.3	622.2	621.9	623.1	626.6	625.3	628.2
35°	570.8	571.1	574.2	573.9	576.5	576.5	576.5	578.3
37.5°	520.6	524.4	522.8	526.6	525.4	526.3	526.3	526.9
40°	474.9	476.2	476.2	477.4	478.4	477.4	478.1	479.6
42.5°	427.6	428.9	429.2	428.6	429.5	432.3	430.1	432.0
45°	383.5	384.4	385.7	384.7	386.3	385.4	386.3	385.7
47.5°	341.8	341.5	341.2	343.7	341.5	341.8	343.1	340.9
50°	299.3	301.2	299.9	300.8	301.5	301.5	300.5	300.5
52.5°	261.4	261.1	260.2	261.1	260.5	260.8	261.4	260.8
55°	222.3	223.6	223.0	222.6	223.0	223.0	224.8	222.3
57.5°	183.8	183.2	184.2	186.4	184.2	185.7	186.7	187.0
60°	147.3	147.3	149.2	148.2	150.1	151.7	152.9	152.3
62.5°	112.3	113.8	114.5	114.8	116.7	117.9	117.9	117.6
65°	83.3	85.5	85.5	86.7	87.4	87.4	88.0	89.2
67.5°	61.5	61.5	61.8	62.4	62.1	62.1	62.8	63.1
70°	42.9	42.3	43.2	42.9	42.9	42.6	42.9	42.9
72.5°	27.1	27.1	27.4	27.1	26.5	26.8	26.8	27.4
75°	14.5	15.1	14.5	14.5	14.8	14.2	14.5	14.8
77.5°	6.0	6.0	6.0	6.0	6.0	5.7	5.7	5.7
80°	2.8	2.8	2.8	2.8	2.8	2.8	2.5	2.5
82.5°	1.3	1.6	1.3	1.6	1.3	1.3	1.3	1.3
85°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
87.5°	0.0	0.3	0.0	0.3	0.0	0.0	0.0	0.3
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)