

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: P857186

Luminaire Tested: **LX4C20D010 EX4C209040 4LBLWWH**

Issue Date: 2/14/2022

Test Information

Test Method: LM-79-08
Report Number: P857186
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2107-320-2)
Test Lab: INNOVATION CENTER
Issue Date: 2/14/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LX4C20D010 EX4C209040 4LBLWWH
Description: 4 INCH 2000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS
AND 4LRLWW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Summary

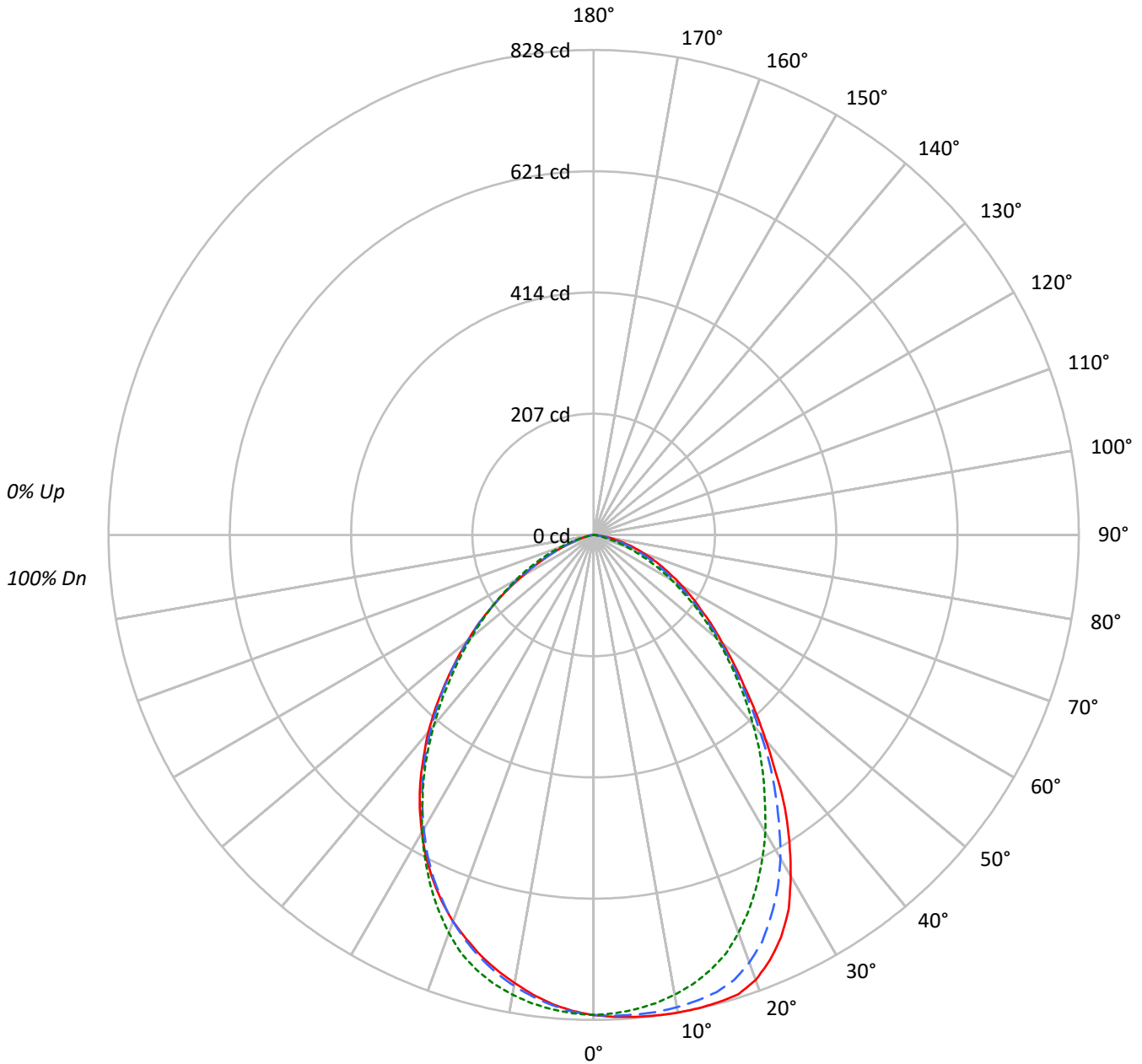
Lumens per Lamp: N/A
Luminaire Lumens: 1545.0 lumens
Efficiency: N/A
Efficacy: 70.9 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.09 / 1.17
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 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	108	105	102	99	101	98	96	97	95	93	94	92	90	88			88
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77			77
3	95	86	79	74	93	85	78	73	82	76	72	79	75	71	77	73	70	68			68
4	88	78	70	64	86	77	69	64	74	68	63	72	67	62	70	65	62	60			60
5	82	71	63	57	80	69	62	57	67	61	56	66	60	55	64	59	55	53			53
6	76	64	56	51	74	63	56	50	62	55	50	60	54	50	59	53	49	47			47
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	44	43			43
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	40	39			39
9	62	50	43	38	61	50	42	37	48	42	37	47	41	37	47	41	37	35			35
10	59	47	39	34	58	46	39	34	45	39	34	44	38	34	43	38	34	32			32

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	100715	100715	100715
5°	101840	100286	99201
10°	103329	99437	96917
15°	105031	97858	94602
20°	105702	94524	91804
25°	102668	89411	88042
30°	95414	83115	83158
35°	85412	75753	77373
40°	73114	67918	70388
45°	62946	59871	62130
50°	54719	52120	53687
55°	48150	44851	44444
60°	42851	37421	34473
65°	37587	29971	24942
70°	32292	21193	16882
75°	26202	12294	9873
80°	18748	5377	4882
85°	7048	2255	2255



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.3	5.0
10°-20°	218.7	14.2
20°-30°	312.3	20.2
30°-40°	326.7	21.1
40°-50°	273.7	17.7
50°-60°	191.6	12.4
60°-70°	104.3	6.8
70°-80°	36.2	2.3
80°-90°	4.2	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°	608.3	39.4
0°-40°	935.0	60.5
0°-60°	1400.3	90.6
0°-90°	1545.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1545.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	820	820	820	820	820	
5°	826	822	813	806	804	79
15°	826	808	769	747	744	233
25°	757	717	660	647	650	346
35°	570	541	505	509	516	353
45°	362	354	345	356	358	282
55°	225	217	209	209	208	203
65°	129	118	103	87	86	129
75°	55	45	26	21	21	60
85°	5	3	2	2	2	9
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°	819.8	819.8	819.8	819.8	819.8	819.8	819.8	819.8	819.8	819.8	819.8
2.5°	823.6	822.7	823.0	823.0	823.0	822.7	823.0	822.7	822.7	822.3	821.7
5°	825.8	825.2	825.2	825.2	824.9	824.5	824.5	824.2	823.6	823.3	822.0
7.5°	827.4	826.8	826.8	826.4	826.1	825.8	825.5	824.5	823.6	823.0	821.4
10°	828.3	827.4	827.4	826.8	826.1	825.8	825.2	823.9	822.7	821.1	818.9
12.5°	827.7	826.8	826.4	825.8	824.5	823.9	823.3	821.7	819.5	817.3	814.5
15°	825.8	825.2	824.5	823.6	822.0	821.1	820.4	817.9	815.1	811.9	808.5
17.5°	822.0	821.1	819.8	818.6	816.3	815.4	813.8	810.7	806.6	802.2	796.8
20°	808.5	807.8	806.6	804.4	800.9	799.6	797.4	793.3	788.0	782.6	776.9
22.5°	786.1	785.1	783.2	781.3	778.2	776.0	774.1	768.4	762.4	756.8	751.4
25°	757.4	756.4	753.9	751.4	748.2	744.5	742.6	738.1	732.2	724.9	717.0
27.5°	720.5	717.3	716.4	713.6	708.8	707.6	704.7	699.0	693.4	687.1	680.4
30°	672.6	672.6	670.7	669.4	665.0	663.7	660.6	654.6	651.4	642.6	637.6
32.5°	621.8	621.2	619.6	618.6	616.1	613.9	610.8	607.6	600.7	596.3	589.3
35°	569.5	565.7	566.3	564.4	562.8	560.3	560.0	556.5	550.2	547.7	541.4
37.5°	509.9	508.3	510.5	507.7	506.1	506.4	503.9	501.7	499.1	494.7	493.5
40°	455.9	457.2	456.9	454.4	455.6	454.1	451.5	449.3	448.1	445.2	444.3
42.5°	407.7	405.8	405.2	405.2	405.5	405.5	404.2	402.7	402.7	399.8	397.0
45°	362.3	362.3	361.7	363.6	360.7	360.7	359.8	359.5	358.2	357.6	354.1
47.5°	323.2	322.9	322.6	322.3	321.9	321.9	320.0	318.5	318.2	316.3	314.4
50°	286.3	288.2	287.6	286.0	285.4	285.7	284.4	283.5	283.2	280.0	280.3
52.5°	255.4	255.1	255.7	254.8	253.2	253.5	252.3	251.0	249.7	248.2	246.9
55°	224.8	226.4	225.8	224.8	224.5	223.9	222.9	221.3	221.0	217.6	217.3
57.5°	199.3	199.0	198.3	196.8	196.4	195.5	195.5	194.2	192.3	190.4	188.9
60°	174.4	174.4	173.4	173.1	171.8	171.5	171.2	170.0	167.7	166.2	163.6
62.5°	150.4	151.0	150.4	149.5	148.5	147.3	146.6	145.7	143.8	142.2	140.0
65°	129.3	129.0	128.6	127.4	127.1	125.8	125.5	123.6	121.7	120.4	117.9
67.5°	109.1	108.2	108.2	107.5	106.9	105.9	105.3	103.4	101.2	100.0	97.4
70°	89.9	89.2	89.2	89.2	87.7	86.7	86.4	85.4	82.3	81.0	78.5
72.5°	72.2	71.9	71.6	70.6	69.7	69.7	68.4	66.5	65.0	63.4	61.5
75°	55.2	55.8	55.2	53.9	53.6	53.0	52.0	50.5	48.9	47.0	44.8
77.5°	40.4	39.7	39.1	39.1	38.5	37.2	36.9	35.6	33.7	32.5	30.3
80°	26.5	26.2	25.5	24.9	24.6	24.3	24.0	22.7	20.8	19.9	18.0
82.5°	14.5	14.2	14.2	13.9	12.9	12.9	12.6	11.4	10.4	9.8	8.8
85°	5.0	5.0	5.0	4.7	4.7	4.7	4.4	4.1	3.8	3.5	2.8
87.5°	0.6	0.3	0.6	0.3	0.6	0.3	0.3	0.3	0.3	0.3	0.3
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°	819.8	819.8	819.8	819.8	819.8	819.8	819.8	819.8	819.8	819.8	819.8
2.5°	821.1	820.4	820.1	819.8	819.5	819.2	818.9	818.2	817.9	817.6	817.0
5°	821.1	819.8	819.2	818.2	817.6	817.0	816.0	815.1	814.1	813.2	812.2
7.5°	819.8	817.9	816.7	814.8	814.1	813.2	811.3	810.0	808.5	806.6	804.4
10°	816.7	814.5	811.9	809.4	808.5	806.9	804.4	802.2	799.6	797.1	794.9
12.5°	811.6	808.1	805.0	801.5	799.6	798.1	794.6	791.4	788.3	785.4	781.7
15°	804.0	799.9	795.9	791.1	788.9	787.0	782.0	778.2	773.1	769.4	765.6
17.5°	791.8	785.4	780.4	774.4	771.3	769.0	764.6	758.6	753.9	749.8	745.4
20°	770.6	764.6	757.7	751.1	747.6	744.8	738.5	732.2	727.4	723.0	718.3
22.5°	742.9	735.3	730.3	722.1	719.2	715.8	708.2	702.5	697.2	692.7	688.3
25°	709.1	702.5	695.6	688.0	684.5	680.4	674.1	668.1	664.7	659.6	654.3
27.5°	670.4	665.0	656.5	649.9	646.4	643.2	637.2	631.9	626.8	623.4	618.3
30°	629.4	623.1	615.5	608.6	606.7	602.9	597.5	593.4	588.1	585.9	583.6
32.5°	584.3	577.0	571.3	566.9	563.1	560.0	557.2	550.5	549.6	543.9	543.3
35°	535.1	531.9	526.6	522.8	519.6	517.4	512.7	509.5	506.1	505.1	502.9
37.5°	488.7	485.0	479.9	476.4	474.2	473.9	470.4	468.6	466.0	464.8	462.2
40°	440.2	438.6	434.2	433.6	430.1	429.8	427.9	425.7	423.5	423.5	423.8
42.5°	395.4	393.5	391.6	389.4	387.5	387.5	386.6	385.9	385.3	384.4	385.9
45°	353.5	350.9	349.7	347.5	348.4	346.5	345.9	345.9	345.0	344.6	346.8
47.5°	314.4	311.5	310.3	309.6	309.6	310.0	307.1	308.1	307.7	308.4	309.3
50°	278.7	276.2	274.3	274.3	274.6	273.4	272.1	273.1	272.1	272.7	275.0
52.5°	245.6	243.1	242.2	242.2	240.3	240.0	240.6	239.3	239.6	240.0	241.2
55°	215.0	213.5	211.9	210.3	210.6	210.0	208.7	208.4	209.1	209.4	210.9
57.5°	187.6	185.4	183.2	182.6	181.9	181.9	180.4	180.0	180.7	179.1	179.1
60°	161.4	160.2	157.3	156.4	156.4	154.8	153.6	154.2	152.6	152.3	152.6
62.5°	137.2	136.2	134.3	132.4	131.8	131.2	129.6	129.0	128.3	127.1	125.2
65°	116.0	113.8	111.6	110.4	109.4	107.8	106.9	105.6	103.7	103.1	101.2
67.5°	94.9	92.7	90.5	89.5	88.6	87.7	86.1	84.5	82.3	79.8	77.6
70°	76.3	73.5	72.2	69.7	69.1	67.8	65.6	64.0	61.8	59.0	56.8
72.5°	58.3	56.4	54.5	52.3	50.8	49.8	47.9	45.4	42.9	41.3	39.1
75°	41.9	41.0	38.5	35.9	35.3	34.1	31.8	30.3	28.4	25.9	24.0
77.5°	28.4	26.5	24.9	22.7	22.1	20.8	19.5	18.0	16.7	15.1	13.9
80°	16.7	15.1	14.2	12.6	12.0	11.4	10.4	9.1	8.2	7.6	7.3
82.5°	8.2	6.9	6.6	5.7	5.4	5.0	4.4	4.1	3.5	3.5	3.5
85°	2.8	2.2	2.2	1.9	1.6	1.6	1.6	1.6	1.6	1.6	1.6
87.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.6	0.3
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°	819.8	819.8	819.8	819.8	819.8	819.8	819.8	819.8	819.8	819.8	819.8
2.5°	816.7	816.3	816.0	815.7	815.7	815.4	815.4	815.1	815.1	814.8	814.8
5°	811.0	810.0	809.4	808.8	808.8	807.8	807.2	806.6	806.3	806.3	805.6
7.5°	803.1	801.8	800.6	799.6	799.3	797.7	796.5	796.5	795.2	794.6	794.0
10°	792.7	790.5	788.6	787.7	786.4	785.4	783.9	782.9	782.0	780.4	780.1
12.5°	778.5	776.9	774.1	772.8	772.2	770.3	767.8	766.5	766.2	765.0	764.0
15°	762.4	759.0	756.4	754.9	754.9	751.7	750.4	748.6	747.3	746.3	746.0
17.5°	741.6	738.1	735.6	733.4	732.8	730.3	728.4	727.7	726.2	726.8	725.2
20°	714.8	712.0	710.1	707.2	707.2	705.7	705.0	703.5	702.8	702.2	702.8
22.5°	686.1	682.7	679.5	679.2	679.2	677.0	676.7	676.3	675.1	676.0	675.7
25°	652.4	649.9	648.0	647.7	647.7	646.4	645.1	645.8	646.7	646.4	647.3
27.5°	617.4	614.9	614.2	613.9	613.3	613.0	613.6	613.6	614.5	615.8	617.1
30°	579.5	578.9	578.0	577.7	577.0	578.6	579.2	580.2	579.9	581.8	583.0
32.5°	541.7	540.4	540.1	540.8	541.7	541.4	543.3	543.9	544.5	546.8	547.7
35°	503.6	503.2	502.6	502.6	502.9	505.4	505.4	507.7	508.9	509.5	512.1
37.5°	462.6	463.8	464.5	465.4	465.7	466.7	467.3	469.5	470.8	472.0	473.3
40°	425.0	424.4	427.2	425.4	426.0	428.8	430.1	429.8	431.7	433.6	434.8
42.5°	385.0	385.9	386.6	387.2	388.8	389.1	390.7	392.9	393.5	395.7	396.3
45°	346.2	346.5	347.8	349.1	350.0	352.5	353.2	354.1	356.0	356.0	356.9
47.5°	309.6	310.9	310.9	312.8	314.4	314.1	316.3	316.9	316.6	318.2	318.8
50°	274.6	276.5	276.2	277.5	278.1	278.4	280.3	280.9	279.7	281.3	281.6
52.5°	241.2	242.2	243.4	243.7	243.1	244.7	244.1	245.3	245.0	246.3	245.0
55°	210.6	210.3	210.3	210.9	210.3	210.9	211.6	210.3	209.4	210.6	210.3
57.5°	180.0	180.0	179.4	180.4	179.4	178.5	178.2	177.2	176.3	176.3	175.9
60°	151.4	150.7	149.5	149.1	149.1	147.6	146.9	145.7	145.7	144.4	143.2
62.5°	124.5	123.0	122.0	122.0	121.4	119.8	117.0	115.1	114.5	112.6	112.3
65°	99.3	97.7	96.8	94.9	93.3	92.7	89.9	87.7	86.7	84.8	85.1
67.5°	76.3	73.8	70.9	69.7	68.7	66.5	65.6	64.0	63.1	63.1	63.1
70°	54.9	52.7	49.8	48.9	48.2	46.4	45.4	45.1	46.0	45.7	46.0
72.5°	36.9	34.7	33.4	32.8	32.2	31.2	31.8	32.2	31.5	31.8	32.2
75°	22.4	21.8	20.8	20.5	20.5	20.8	20.5	20.5	20.8	20.8	21.1
77.5°	12.9	12.3	12.3	12.0	12.6	12.3	12.3	12.3	12.6	12.6	12.6
80°	6.9	6.9	6.9	6.9	7.3	6.9	7.3	7.3	7.3	7.3	7.3
82.5°	3.5	3.5	3.5	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.5
85°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
87.5°	0.3	0.6	0.6	0.6	0.6	0.6	0.3	0.3	0.3	0.3	0.3
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°	819.8	819.8	819.8	819.8	819.8	819.8	819.8	819.8
2.5°	814.1	814.1	814.1	813.5	813.8	813.8	813.5	813.5
5°	805.3	805.0	804.4	804.4	803.7	804.4	804.0	804.4
7.5°	793.3	793.3	792.4	792.4	792.1	791.8	791.4	791.8
10°	779.1	779.1	778.5	778.2	778.5	777.2	777.2	776.9
12.5°	763.4	762.7	762.1	762.4	762.1	761.2	760.9	761.2
15°	745.1	744.1	744.5	743.5	743.5	743.2	743.8	743.8
17.5°	724.9	724.3	723.6	724.0	723.3	723.6	723.3	723.0
20°	702.5	702.2	702.2	700.9	701.3	700.9	701.3	702.2
22.5°	676.7	676.3	676.7	675.7	676.3	676.3	677.3	677.3
25°	648.3	648.0	648.6	648.9	649.2	650.2	649.2	649.5
27.5°	616.8	617.7	618.6	619.0	620.2	619.3	618.6	619.6
30°	584.9	584.9	584.6	585.9	586.8	587.7	586.2	586.2
32.5°	548.3	549.9	549.9	550.2	551.2	551.2	551.2	552.4
35°	513.3	514.3	514.6	513.3	514.0	513.6	515.9	515.9
37.5°	474.2	474.2	474.5	476.8	476.8	475.8	476.4	476.4
40°	437.0	437.3	436.1	436.7	438.3	437.7	438.3	438.9
42.5°	396.3	398.6	397.3	397.9	397.6	397.9	398.2	398.2
45°	357.6	358.2	358.2	358.5	359.1	359.8	357.9	357.6
47.5°	319.7	320.0	321.0	319.4	321.3	319.4	321.3	319.1
50°	281.6	282.8	281.9	282.5	281.6	281.6	281.3	280.9
52.5°	245.3	245.0	245.0	244.7	244.7	245.3	244.7	245.6
55°	209.1	209.4	208.7	208.4	208.1	209.1	208.1	207.5
57.5°	174.7	175.3	174.1	174.7	172.5	173.4	173.7	174.1
60°	142.8	141.9	141.9	140.6	140.6	141.6	140.3	140.3
62.5°	110.7	111.3	110.4	111.6	111.6	112.9	112.3	112.9
65°	84.8	85.1	85.4	85.4	85.4	87.3	86.7	85.8
67.5°	64.0	64.3	64.6	64.3	65.3	64.6	64.6	65.0
70°	46.4	46.7	47.0	47.0	46.7	47.0	47.0	47.0
72.5°	32.2	32.5	32.2	32.5	32.8	32.5	32.5	32.8
75°	21.1	21.1	20.8	20.8	20.8	20.8	21.1	20.8
77.5°	12.3	12.6	12.3	12.6	12.6	12.6	12.6	12.6
80°	7.3	7.3	7.3	6.9	7.3	7.3	7.3	6.9
82.5°	3.8	3.8	3.5	3.5	3.8	3.8	3.8	3.8
85°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
87.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	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)