

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: P856941

Luminaire Tested: **LX4C15D010 EX4C159030 4LBSWNH**

Issue Date: 2/18/2022



Test Information

Test Method: LM-79-08
Report Number: P856941
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P251634)
Test Lab: INNOVATION CENTER
Issue Date: 2/18/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LX4C15D010 EX4C159030 4LBSWNH
Description: 4 INCH 1500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LCSW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Summary

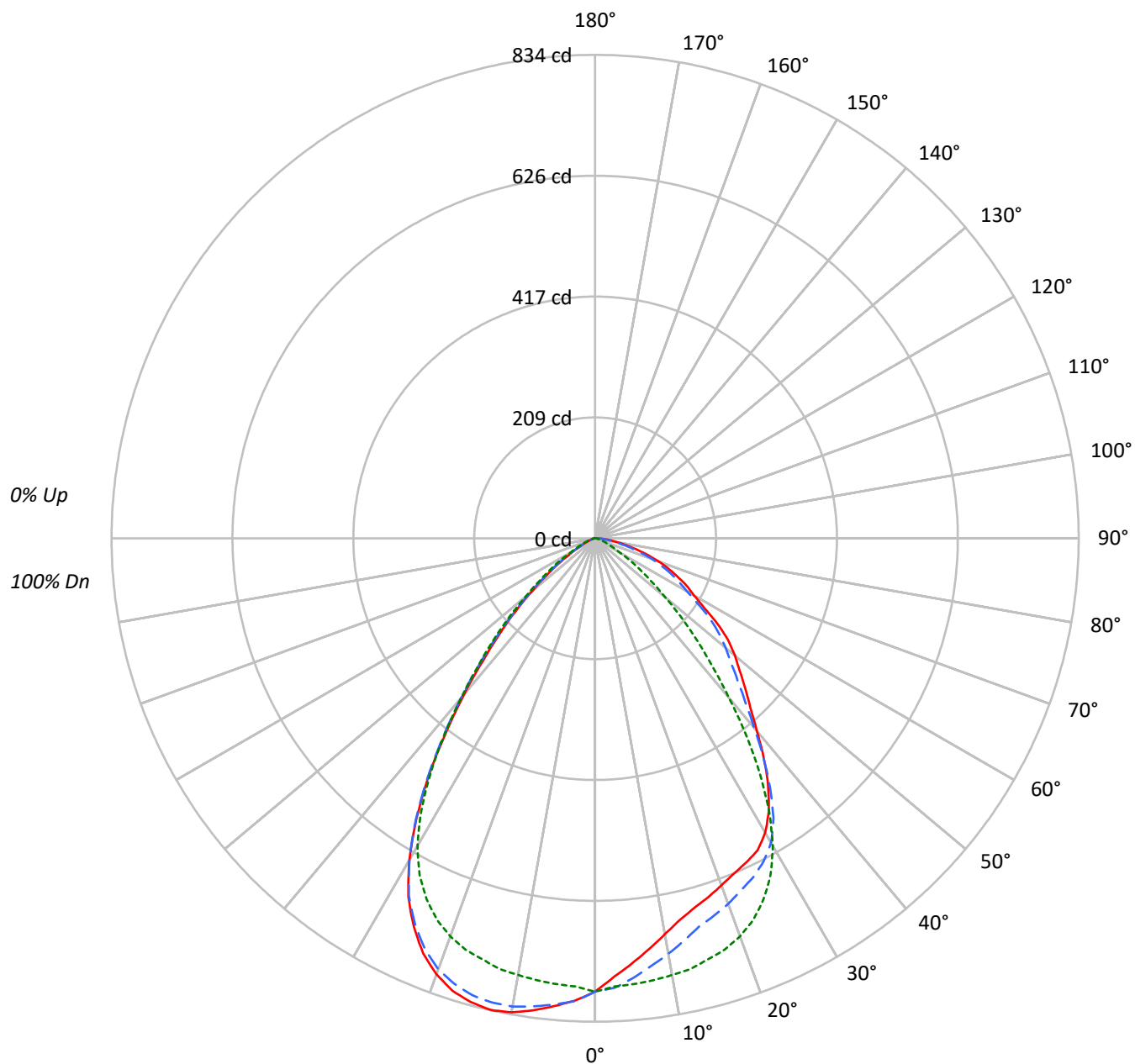
Lumens per Lamp: N/A
Luminaire Lumens: 1371.0 lumens
Efficiency: N/A
Efficacy: 86.8 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.17 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 15.8
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
RW	70	50	30	10	70	50	30	10		50	30	10		50	30	10		50	30	10
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111		106	106	106		102	102	102
1	111	108	104	101	109	106	103	100		101	99	97		98	96	94		94	93	91
2	104	97	92	87	101	95	90	86		92	88	84		89	85	82		86	83	81
3	96	88	81	76	94	86	80	75		83	78	74		81	76	73		78	75	72
4	90	80	72	67	88	78	72	66		76	70	66		74	69	65		72	68	64
5	83	73	65	60	82	72	65	59		70	63	59		68	62	58		66	61	58
6	78	67	59	53	76	66	59	53		64	58	53		62	57	52		61	56	52
7	73	61	54	48	71	61	53	48		59	53	48		58	52	48		56	51	47
8	68	57	49	44	67	56	49	44		55	48	44		54	48	43		52	47	43
9	64	52	45	40	63	52	45	40		51	44	40		50	44	40		49	44	40
10	61	49	42	37	59	48	42	37		47	41	37		47	41	37		46	40	37

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	96084	96084	96084
5°	90741	95217	99928
10°	86501	95433	103604
15°	83969	95632	105375
20°	83280	95530	104630
25°	83610	93180	100283
30°	83214	86931	90932
35°	78003	74223	74973
40°	69506	57542	56259
45°	63572	42897	40273
50°	60109	30045	27159
55°	55261	20284	17049
60°	48281	11892	9411
65°	45697	7616	5262
70°	41631	5424	3269
75°	34461	3845	2421
80°	27097	2122	1415
85°	24104	1410	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.9	5.4
10°-20°	212.0	15.5
20°-30°	314.3	22.9
30°-40°	314.7	23.0
40°-50°	219.9	16.0
50°-60°	130.9	9.5
60°-70°	68.3	5.0
70°-80°	30.4	2.2
80°-90°	6.6	0.5
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°	600.2	43.8
0°-40°	914.9	66.7
0°-60°	1265.7	92.3
0°-90°	1371.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1371.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	782	782	782	782	782	
5°	736	761	772	807	810	69
15°	660	693	752	816	828	187
25°	617	645	687	735	740	284
35°	520	526	495	504	500	322
45°	366	348	247	239	232	284
55°	258	242	95	83	80	229
65°	157	144	26	19	18	156
75°	73	64	8	5	5	78
85°	17	13	1	1	0	19
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°	782.1	782.1	782.1	782.1	782.1	782.1	782.1	782.1	782.1	782.1	782.1
2.5°	756.9	766.0	756.9	760.0	772.1	761.0	767.0	767.0	764.0	771.0	776.1
5°	735.8	744.8	735.8	739.8	752.9	741.8	748.9	746.9	747.9	753.9	761.0
7.5°	714.6	721.6	713.6	718.6	730.7	721.6	727.7	727.7	728.7	737.8	743.9
10°	693.4	699.5	693.4	697.5	710.6	702.5	706.6	707.5	710.6	718.6	727.7
12.5°	674.3	679.3	673.3	679.3	690.4	682.3	687.4	688.4	691.4	700.5	710.6
15°	660.2	665.2	659.2	664.2	674.3	668.2	672.3	674.3	676.3	684.3	693.4
17.5°	649.1	653.1	648.1	654.1	662.2	655.2	661.2	661.2	664.2	672.3	682.3
20°	637.0	641.0	637.0	642.0	651.1	645.1	650.1	650.1	653.1	662.2	671.3
22.5°	625.9	627.9	625.9	629.9	639.0	634.0	637.0	638.0	641.0	649.1	657.2
25°	616.8	620.9	618.8	622.9	628.9	623.9	626.9	627.9	630.9	638.0	645.1
27.5°	606.8	608.8	606.8	611.8	616.8	612.8	615.8	614.8	616.8	622.9	628.9
30°	586.6	588.6	588.6	591.6	595.7	593.7	596.7	593.7	595.7	600.7	606.8
32.5°	557.4	558.4	559.4	562.4	565.4	562.4	564.4	564.4	564.4	568.5	572.5
35°	520.1	522.1	521.1	523.1	526.1	525.1	525.1	524.1	522.1	524.1	526.1
37.5°	477.8	474.7	474.7	477.8	479.8	475.7	477.8	475.7	475.7	476.7	476.7
40°	433.4	430.4	433.4	434.4	435.4	433.4	432.4	430.4	427.3	428.4	426.3
42.5°	396.1	394.1	395.1	395.1	396.1	394.1	395.1	391.1	388.0	386.0	383.0
45°	365.9	362.9	365.9	363.8	363.8	362.9	361.8	359.8	355.8	352.8	347.7
47.5°	337.7	337.7	338.6	338.6	338.6	336.6	336.6	332.6	328.6	324.5	317.5
50°	314.5	312.4	316.5	316.5	313.5	312.4	313.5	308.4	305.4	300.4	293.3
52.5°	289.3	289.3	290.3	290.3	289.3	287.2	288.3	284.2	281.2	276.2	269.1
55°	258.0	256.0	259.0	259.0	258.0	257.0	258.0	255.0	252.0	248.0	241.9
57.5°	222.8	221.7	223.7	224.8	222.8	222.8	223.7	220.7	219.7	215.7	209.6
60°	196.5	195.5	197.5	198.6	196.5	196.5	196.5	192.5	190.5	186.4	182.4
62.5°	178.4	177.4	179.4	178.4	177.4	176.4	177.4	173.4	171.4	167.3	163.3
65°	157.2	158.2	159.3	159.3	158.2	157.2	157.2	155.2	153.2	149.2	144.1
67.5°	137.1	137.1	138.1	139.1	138.1	138.1	138.1	135.0	133.0	130.0	124.0
70°	115.9	114.9	117.9	117.9	115.9	116.9	115.9	114.9	112.9	108.8	103.8
72.5°	93.7	93.7	94.7	94.7	93.7	93.7	93.7	92.7	89.7	87.7	82.7
75°	72.6	72.6	73.6	74.6	72.6	72.6	73.6	71.6	69.5	66.5	63.5
77.5°	54.4	53.4	54.4	54.4	53.4	53.4	53.4	52.4	51.4	48.4	45.4
80°	38.3	37.3	38.3	38.3	38.3	37.3	37.3	36.3	36.3	34.3	31.3
82.5°	26.2	25.2	26.2	26.2	26.2	25.2	25.2	25.2	24.2	23.2	21.2
85°	17.1	16.1	16.1	17.1	16.1	16.1	16.1	16.1	15.1	14.1	13.1
87.5°	8.1	8.1	8.1	8.1	8.1	8.1	8.1	7.1	7.1	7.1	6.0
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°	782.1	782.1	782.1	782.1	782.1	782.1	782.1	782.1	782.1	782.1	782.1
2.5°	772.1	770.0	776.1	774.1	775.1	770.0	778.1	774.1	779.1	774.1	784.2
5°	758.9	756.9	766.0	765.0	766.0	762.0	771.0	770.0	776.1	772.1	783.1
7.5°	744.8	742.8	752.9	753.9	755.9	751.9	764.0	764.0	770.0	769.0	781.1
10°	728.7	729.7	739.8	741.8	745.9	743.9	754.9	758.0	766.0	765.0	780.1
12.5°	713.6	713.6	726.7	730.7	733.7	732.7	745.9	749.9	758.9	761.0	775.1
15°	698.5	699.5	711.6	717.6	721.6	720.7	734.8	739.8	750.9	751.9	769.0
17.5°	686.4	685.4	698.5	703.5	709.6	708.6	723.7	729.7	740.8	743.9	760.0
20°	676.3	675.3	687.4	693.4	697.5	696.5	711.6	718.6	728.7	730.7	746.9
22.5°	664.2	662.2	674.3	679.3	683.4	682.3	695.5	700.5	710.6	712.6	727.7
25°	650.1	648.1	659.2	662.2	665.2	663.2	674.3	677.3	685.4	687.4	702.5
27.5°	634.0	628.9	638.0	638.0	640.0	637.0	645.1	648.1	655.2	655.2	669.3
30°	608.8	601.7	606.8	605.8	606.8	602.7	607.8	608.8	613.8	612.8	622.9
32.5°	573.5	563.4	566.5	563.4	560.4	554.4	560.4	558.4	562.4	558.4	567.4
35°	525.1	515.0	514.0	510.0	507.0	501.9	501.9	496.9	497.9	494.9	500.9
37.5°	472.7	459.6	457.6	449.5	444.5	438.4	438.4	434.4	429.4	427.3	432.4
40°	421.3	407.2	402.2	389.1	384.0	378.0	373.9	368.9	366.9	358.8	362.9
42.5°	377.0	361.8	350.8	336.6	331.6	322.5	316.5	310.4	307.4	298.3	302.4
45°	339.7	321.5	309.4	291.3	284.2	274.2	265.1	258.0	251.0	246.9	244.9
47.5°	308.4	289.3	273.1	253.0	241.9	232.8	220.7	213.7	204.6	199.6	196.5
50°	282.2	261.0	242.9	219.7	208.7	198.6	184.4	173.4	165.3	157.2	155.2
52.5°	259.0	236.9	216.7	190.5	177.4	165.3	150.2	138.1	131.0	122.0	120.9
55°	231.8	212.7	190.5	163.3	150.2	138.1	122.0	109.9	100.8	94.7	92.7
57.5°	202.6	184.4	163.3	136.1	123.0	109.9	94.7	83.6	75.6	70.6	69.5
60°	175.4	158.2	138.1	110.9	97.7	86.7	70.6	59.5	52.4	48.4	46.3
62.5°	155.2	139.1	120.0	94.7	82.7	71.6	56.5	46.3	40.3	36.3	34.3
65°	136.1	120.0	102.8	79.6	69.5	59.5	45.4	36.3	30.2	26.2	24.2
67.5°	115.9	101.8	85.7	66.5	56.5	48.4	36.3	28.2	23.2	20.1	18.1
70°	95.7	82.7	69.5	53.4	46.3	38.3	28.2	22.2	17.1	15.1	13.1
72.5°	75.6	65.5	54.4	41.3	35.3	30.2	22.2	16.1	13.1	11.1	9.1
75°	56.5	49.4	40.3	31.3	26.2	22.2	16.1	12.1	10.1	8.1	7.1
77.5°	40.3	34.3	28.2	21.2	19.2	16.1	11.1	9.1	7.1	5.1	4.0
80°	27.2	24.2	19.2	15.1	12.1	11.1	8.1	6.0	4.0	3.0	3.0
82.5°	18.1	15.1	12.1	9.1	8.1	7.1	5.1	4.0	3.0	2.0	2.0
85°	11.1	9.1	7.1	5.1	5.1	4.0	3.0	2.0	1.0	1.0	1.0
87.5°	5.1	4.0	3.0	2.0	2.0	1.0	1.0	1.0	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):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	782.1	782.1	782.1	782.1	782.1	782.1	782.1	782.1	782.1	782.1	782.1
2.5°	792.2	786.2	782.1	787.2	789.2	786.2	789.2	794.2	799.3	800.3	786.2
5°	793.2	787.2	785.1	791.2	792.2	791.2	794.2	801.3	807.3	809.4	795.3
7.5°	793.2	789.2	788.2	795.3	796.2	795.3	800.3	808.3	814.4	818.4	804.3
10°	791.2	789.2	790.2	796.2	798.3	798.3	805.3	814.4	820.4	824.5	810.3
12.5°	788.2	788.2	788.2	795.3	797.3	798.3	804.3	816.4	820.4	826.5	812.4
15°	783.1	783.1	783.1	790.2	793.2	793.2	800.3	811.4	816.4	822.4	808.3
17.5°	774.1	774.1	775.1	781.1	784.2	784.2	791.2	803.3	806.3	813.4	799.3
20°	761.0	761.0	762.0	768.0	771.0	769.0	778.1	788.2	791.2	797.3	783.1
22.5°	741.8	741.8	741.8	747.9	749.9	748.9	758.0	767.0	767.0	775.1	760.0
25°	713.6	715.6	713.6	719.6	721.6	720.7	728.7	736.8	734.8	743.9	728.7
27.5°	679.3	678.3	678.3	683.4	683.4	682.3	688.4	697.5	695.5	701.5	687.4
30°	632.0	635.0	629.9	637.0	634.0	632.0	636.0	644.0	641.0	646.1	635.0
32.5°	577.5	573.5	573.5	573.5	575.5	570.5	574.5	578.5	575.5	580.6	568.5
35°	506.0	507.0	503.9	505.0	506.0	499.9	503.9	508.0	503.9	507.0	495.9
37.5°	434.4	435.4	428.4	432.4	428.4	426.3	430.4	432.4	428.4	431.4	419.3
40°	362.9	360.8	359.8	359.8	360.8	355.8	358.8	361.8	358.8	360.8	349.7
42.5°	300.4	299.4	297.4	298.3	295.3	294.3	295.3	298.3	295.3	297.4	289.3
45°	245.9	243.9	240.9	241.9	241.9	236.9	239.9	241.9	238.9	239.9	232.8
47.5°	195.5	192.5	192.5	191.5	191.5	189.5	192.5	191.5	188.5	190.5	183.4
50°	152.2	150.2	150.2	150.2	150.2	147.1	148.2	150.2	147.1	147.1	143.1
52.5°	118.9	115.9	113.9	113.9	113.9	112.9	112.9	113.9	110.9	110.9	109.9
55°	89.7	88.7	85.7	85.7	85.7	82.7	83.6	83.6	82.7	82.7	79.6
57.5°	66.5	63.5	61.5	61.5	59.5	59.5	58.5	59.5	57.4	57.4	55.4
60°	44.3	42.3	41.3	40.3	40.3	39.3	40.3	39.3	39.3	38.3	37.3
62.5°	32.2	30.2	28.2	28.2	28.2	27.2	27.2	27.2	27.2	27.2	26.2
65°	23.2	21.2	21.2	20.1	20.1	19.2	19.2	19.2	19.2	19.2	18.1
67.5°	16.1	15.1	14.1	14.1	14.1	14.1	14.1	14.1	13.1	13.1	13.1
70°	12.1	11.1	10.1	10.1	10.1	10.1	10.1	9.1	10.1	10.1	9.1
72.5°	8.1	8.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1
75°	6.0	6.0	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
77.5°	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
80°	3.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
82.5°	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
85°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0
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



TEST NUMBER: P856941

CATALOG NUMBER: LX4C15D010 EX4C159030 4LBSWNH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	782.1	782.1	782.1	782.1	782.1	782.1	782.1	782.1
2.5°	801.3	800.3	798.3	801.3	793.2	790.2	789.2	798.3
5°	812.4	810.3	810.3	813.4	804.3	802.3	800.3	810.3
7.5°	822.4	820.4	820.4	823.5	815.4	813.4	811.4	821.4
10°	828.5	828.5	828.5	830.5	823.5	821.4	820.4	830.5
12.5°	831.5	831.5	830.5	834.5	825.5	825.5	823.5	833.5
15°	827.5	827.5	827.5	830.5	822.4	820.4	820.4	828.5
17.5°	817.4	817.4	816.4	819.4	810.3	810.3	809.4	818.4
20°	802.3	802.3	800.3	804.3	795.3	792.2	791.2	800.3
22.5°	778.1	777.1	776.1	778.1	770.0	768.0	767.0	775.1
25°	746.9	745.9	743.9	745.9	736.8	733.7	733.7	739.8
27.5°	702.5	702.5	699.5	702.5	692.4	691.4	690.4	697.5
30°	648.1	644.0	642.0	646.1	636.0	636.0	634.0	641.0
32.5°	580.6	576.5	575.5	577.5	568.5	565.4	569.5	573.5
35°	503.0	503.9	499.9	499.9	491.9	492.8	493.9	499.9
37.5°	428.4	426.3	425.3	426.3	420.3	418.3	416.3	422.3
40°	358.8	353.8	352.8	352.8	347.7	346.7	347.7	350.8
42.5°	293.3	292.3	288.3	290.3	285.2	287.2	286.2	286.2
45°	236.9	237.8	233.8	236.9	232.8	229.8	229.8	231.8
47.5°	187.5	187.5	186.4	186.4	183.4	184.4	182.4	185.5
50°	145.1	145.1	143.1	144.1	142.1	142.1	141.1	142.1
52.5°	110.9	109.9	109.9	108.8	106.8	107.9	108.8	106.8
55°	80.6	81.6	79.6	80.6	78.6	79.6	78.6	79.6
57.5°	55.4	56.5	54.4	56.5	54.4	55.4	54.4	54.4
60°	38.3	38.3	37.3	38.3	37.3	37.3	36.3	38.3
62.5°	26.2	26.2	26.2	26.2	26.2	25.2	26.2	26.2
65°	19.2	18.1	18.1	18.1	18.1	18.1	18.1	18.1
67.5°	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1
70°	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1
72.5°	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1
75°	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
77.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
80°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
82.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
85°	1.0	1.0	1.0	0.0	1.0	0.0	0.0	0.0
87.5°	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



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— 0°-180° - - 45°-225° - - - 90°-270°













(END OF REPORT)