

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: P856931

Luminaire Tested: **LX4C15D010 EX4C159030 4LBLWW***

Issue Date: 2/9/2022



Test Information

Test Method: LM-79-08
Report Number: P856931
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: LX4C15D010 EX4C159030 4LBLWW*
Description: 4 INCH 1500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LRLWW TRIM WITH * FINISH
Light Source: -
Ballast/Driver: -

Summary

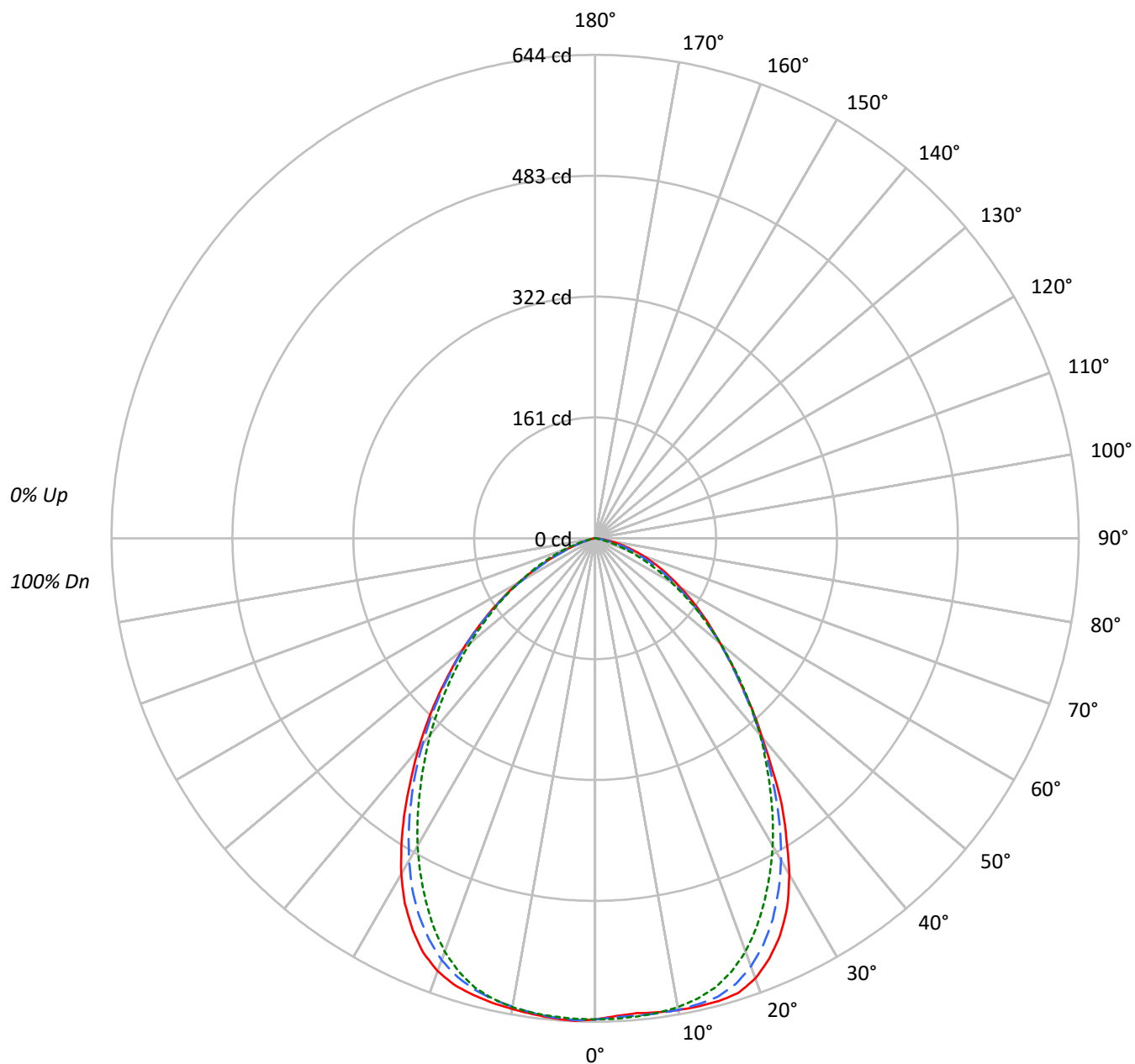
Lumens per Lamp: N/A
Luminaire Lumens: 1229.0 lumens
Efficiency: N/A
Efficacy: 77.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.12 / 1.18
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 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

TEST NUMBER: P856931

CATALOG NUMBER: LX4C15D010 EX4C159030 4LBLWW*

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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	111	107	104	101	109	105	102	99	101	99	96		97	95	93		94
2	103	96	91	86	101	95	89	85	91	87	83		88	84	81		85
3	95	87	80	74	93	85	79	74	82	77	72		80	75	71		77
4	88	78	71	65	86	77	70	65	75	69	64		72	67	63		70
5	82	71	63	57	80	70	63	57	68	61	57		66	60	56		64
6	76	65	57	51	75	64	56	51	62	56	51		61	55	50		59
7	71	59	51	46	70	59	51	46	57	50	46		56	50	45		54
8	67	55	47	42	65	54	47	42	53	46	41		52	46	41		50
9	63	51	43	38	61	50	43	38	49	42	38		48	42	38		47
10	59	47	40	35	58	46	39	35	45	39	35		45	39	35		44

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	78749	78749	78749
5°	78310	78853	79149
10°	79615	79128	79427
15°	81171	78780	80090
20°	81580	76573	80221
25°	79069	72304	77984
30°	73384	67099	73256
35°	64985	60875	66215
40°	55393	54816	58713
45°	47588	48144	51149
50°	41551	41646	43844
55°	36712	35170	36348
60°	32188	28699	28576
65°	28488	22238	19796
70°	24282	15302	11746
75°	19651	8212	5364
80°	13442	2052	1344
85°	4088	705	705



TEST NUMBER: P856931

CATALOG NUMBER: LX4C15D010 EX4C159030 4LBLWW*

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.9	5.0
10°-20°	176.4	14.4
20°-30°	254.8	20.7
30°-40°	263.4	21.4
40°-50°	217.7	17.7
50°-60°	150.2	12.2
60°-70°	78.7	6.4
70°-80°	24.8	2.0
80°-90°	2.1	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°	492.1	40.0
0°-40°	755.6	61.5
0°-60°	1123.5	91.4
0°-90°	1229.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1229.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	641	641	641	641	641	
5°	635	638	639	641	642	61
15°	638	632	619	622	630	180
25°	583	560	533	555	575	266
35°	433	419	406	427	442	269
45°	274	273	277	290	294	214
55°	171	166	164	169	170	154
65°	98	89	76	64	68	97
75°	41	32	17	12	11	44
85°	3	1	0	0	0	6
90°	0	0	0	0	0	



TEST NUMBER: P856931

CATALOG NUMBER: LX4C15D010 EX4C159030 4LBLWW*

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0
2.5°	637.0	637.2	637.2	637.7	637.7	637.7	637.9	637.9	638.2	638.4	638.6
5°	635.0	635.0	635.5	635.7	636.2	636.5	637.0	637.2	637.7	637.9	638.2
7.5°	637.0	637.0	637.2	637.4	637.4	637.7	637.7	637.9	638.2	638.4	638.4
10°	638.2	638.2	638.2	638.2	638.4	638.4	638.4	638.2	638.2	638.2	637.9
12.5°	638.6	638.6	638.4	638.2	638.4	638.2	638.2	637.4	637.0	636.5	635.7
15°	638.2	638.2	637.9	637.7	637.4	637.0	636.7	635.5	634.5	633.1	632.1
17.5°	635.0	634.5	634.1	633.6	632.6	631.9	631.4	629.2	627.6	625.2	622.5
20°	624.0	623.5	622.7	621.5	620.3	619.4	617.9	614.8	613.1	609.5	606.9
22.5°	605.9	605.4	605.7	603.5	601.1	599.6	598.7	596.0	593.1	588.6	585.7
25°	583.3	581.8	581.8	578.5	577.3	576.3	575.1	572.0	567.6	563.5	559.7
27.5°	553.9	552.0	551.0	550.5	547.6	545.5	543.8	541.4	537.8	534.2	528.9
30°	517.3	517.1	515.9	513.7	511.5	510.6	508.6	504.6	501.2	498.5	495.2
32.5°	474.2	474.0	474.0	474.0	472.5	472.3	469.4	467.2	464.6	460.5	458.3
35°	433.3	433.1	433.3	429.7	428.7	428.0	427.8	426.3	422.7	420.8	418.9
37.5°	387.1	387.8	387.3	386.4	387.6	385.4	387.1	384.0	382.5	382.0	379.9
40°	345.4	347.4	345.4	345.7	346.9	344.7	344.7	344.2	343.3	342.8	342.3
42.5°	309.8	307.4	308.8	307.6	308.8	308.1	306.9	307.6	307.9	306.9	306.7
45°	273.9	274.4	274.9	274.2	274.2	273.5	275.4	274.2	274.2	274.4	272.7
47.5°	244.8	244.1	244.6	244.1	244.3	243.9	244.3	244.6	244.1	244.1	242.6
50°	217.4	216.9	218.6	217.1	217.1	216.9	217.1	216.7	215.9	215.9	216.4
52.5°	193.5	192.6	192.3	193.5	191.9	191.9	192.1	191.6	190.7	190.2	189.0
55°	171.4	171.2	171.4	170.4	170.0	170.0	168.7	168.3	168.0	166.8	166.1
57.5°	150.7	150.0	150.2	150.0	149.0	148.8	147.8	147.8	146.8	145.9	144.7
60°	131.0	131.0	131.7	130.7	130.0	129.5	129.0	128.5	126.9	125.2	123.7
62.5°	113.4	113.6	113.4	112.7	112.2	111.7	111.2	109.8	108.3	107.4	105.7
65°	98.0	97.7	97.0	96.5	95.3	95.3	94.4	93.6	92.0	90.5	88.8
67.5°	82.1	81.6	81.6	81.6	80.2	79.9	79.4	78.0	76.5	74.6	73.2
70°	67.6	68.1	67.4	66.7	66.0	65.7	65.0	63.6	61.9	59.9	58.7
72.5°	53.9	54.4	53.7	53.4	52.0	51.5	51.3	50.1	48.1	46.9	45.0
75°	41.4	41.6	41.2	40.7	39.7	39.5	38.3	37.3	36.1	34.2	32.5
77.5°	29.8	29.4	29.4	28.4	27.4	27.4	27.2	25.8	24.1	22.6	21.2
80°	19.0	18.8	18.1	17.6	16.9	16.6	16.4	15.2	14.0	13.0	12.0
82.5°	9.6	9.4	9.1	8.9	8.4	7.9	8.2	7.2	6.7	5.8	5.1
85°	2.9	3.1	3.1	2.9	2.6	2.6	2.6	2.4	1.9	1.7	1.4
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: P856931

CATALOG NUMBER: LX4C15D010 EX4C159030 4LBLWW*

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0
2.5°	638.9	639.1	639.4	639.6	639.6	639.8	640.1	640.3	640.6	640.6	640.8
5°	638.4	638.9	638.9	639.1	639.1	639.1	639.4	639.4	639.4	639.4	639.6
7.5°	638.6	638.6	638.6	638.4	638.4	638.2	638.2	638.2	637.7	637.7	637.7
10°	637.4	637.2	637.0	636.5	636.2	636.0	635.5	635.0	634.5	634.3	633.8
12.5°	635.0	634.1	633.1	632.1	631.7	631.4	630.5	629.7	629.0	628.3	627.8
15°	630.2	628.8	627.1	625.2	624.7	624.2	622.5	621.1	620.1	619.4	618.2
17.5°	620.6	617.7	615.8	612.9	611.7	611.2	608.5	607.1	605.4	604.9	604.0
20°	603.5	600.8	597.2	594.6	593.1	591.7	589.5	587.6	585.7	585.7	584.5
22.5°	582.1	578.7	574.1	570.8	570.5	567.6	565.7	563.5	562.8	561.4	561.4
25°	555.1	552.2	547.2	544.3	542.8	542.1	539.0	536.1	534.6	533.4	534.4
27.5°	525.3	520.9	517.1	513.5	512.3	510.8	507.9	506.7	504.1	503.8	503.6
30°	491.1	486.7	482.9	481.2	478.8	477.6	475.4	474.0	473.0	473.0	472.5
32.5°	455.2	451.4	449.4	445.8	444.6	442.9	441.5	440.0	440.5	440.0	440.3
35°	416.5	415.5	411.9	409.7	409.7	409.5	407.1	406.1	405.6	405.9	407.1
37.5°	379.6	376.7	374.3	372.9	374.1	372.6	372.4	372.4	373.8	372.9	374.8
40°	340.4	340.1	339.2	339.7	339.9	338.2	338.7	338.9	339.9	341.8	342.1
42.5°	306.2	306.0	306.0	306.0	305.5	304.5	305.5	307.2	306.9	308.4	309.6
45°	273.2	272.7	273.7	273.0	274.4	274.9	274.2	274.7	276.1	277.1	279.0
47.5°	243.1	243.1	243.4	243.9	242.4	243.6	244.1	245.1	245.8	246.3	247.2
50°	215.2	215.2	214.7	214.7	214.7	215.4	214.5	215.7	215.9	217.9	219.1
52.5°	189.4	188.2	189.0	188.5	187.5	187.0	187.5	187.8	189.2	189.7	191.1
55°	164.9	164.9	163.0	162.5	163.2	163.0	162.7	162.7	163.5	164.2	165.4
57.5°	143.2	141.8	140.3	140.1	139.4	139.6	139.6	139.4	138.9	139.1	139.4
60°	122.8	121.8	119.6	119.6	119.4	119.2	118.0	117.7	116.5	116.8	115.8
62.5°	104.0	103.5	100.6	99.7	99.7	98.9	97.7	97.5	95.8	95.8	94.8
65°	87.1	85.7	84.0	82.3	82.3	81.4	80.6	78.5	77.3	76.5	75.1
67.5°	71.7	69.6	67.9	66.4	65.5	65.2	63.6	62.1	60.2	59.0	56.8
70°	56.8	55.1	53.4	52.0	51.0	50.1	48.4	46.2	44.8	42.6	41.2
72.5°	42.8	41.4	40.0	38.0	36.8	36.1	34.4	32.5	30.1	28.6	26.7
75°	30.8	29.1	27.2	25.5	24.8	24.1	22.1	20.7	19.0	17.3	15.4
77.5°	20.0	18.1	16.6	14.7	14.4	14.0	12.0	10.6	9.4	8.4	7.2
80°	10.6	9.6	8.4	7.2	6.7	6.0	5.1	4.3	3.6	2.9	2.4
82.5°	4.6	3.9	3.1	2.6	2.4	2.2	1.7	1.4	1.2	1.2	1.0
85°	1.2	1.0	1.0	0.7	0.5	0.5	0.5	0.5	0.5	0.5	0.5
87.5°	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0.0	0.2	0.2	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: P856931

CATALOG NUMBER: LX4C15D010 EX4C159030 4LBLWW*

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0
2.5°	641.0	641.3	641.5	641.5	641.8	642.0	642.0	642.2	642.5	642.7	642.7
5°	639.8	639.8	639.8	640.1	640.1	640.1	640.1	640.6	640.6	640.8	641.0
7.5°	637.4	637.4	637.4	637.4	637.2	637.4	637.2	637.2	637.7	637.9	638.2
10°	633.6	633.3	633.3	633.1	633.1	633.1	633.3	633.6	633.8	634.1	634.8
12.5°	627.6	627.3	627.3	627.1	627.1	627.3	627.6	628.0	629.0	629.5	630.5
15°	617.9	617.7	617.9	618.2	618.7	619.4	620.1	620.8	622.3	623.5	624.7
17.5°	604.0	604.2	604.5	604.9	605.7	606.6	608.5	610.5	612.2	614.1	616.0
20°	584.7	585.7	585.9	587.6	588.1	590.3	592.4	595.3	598.0	600.4	603.0
22.5°	561.6	562.3	563.3	565.2	566.4	569.3	572.0	575.3	578.2	581.3	585.2
25°	535.4	535.6	538.5	538.5	541.4	543.8	546.9	550.5	554.9	559.0	561.6
27.5°	505.5	506.7	508.9	509.9	512.0	515.9	518.5	522.8	527.2	530.8	533.7
30°	474.2	475.2	478.8	479.3	481.0	484.3	487.9	492.0	495.4	499.5	502.1
32.5°	441.2	443.9	446.1	447.7	448.2	453.3	455.2	458.1	461.9	466.0	468.7
35°	409.2	410.4	413.6	414.5	416.0	418.9	422.7	425.1	427.0	429.7	432.8
37.5°	375.3	378.9	379.6	382.5	383.0	385.6	387.6	390.5	392.9	395.3	395.7
40°	343.8	345.0	347.6	348.3	348.8	352.4	354.8	355.5	356.8	358.9	361.8
42.5°	311.7	312.9	315.8	315.1	317.3	319.0	320.2	323.0	324.3	325.0	325.0
45°	280.2	280.7	282.6	283.6	284.8	285.7	287.9	289.3	289.8	292.0	292.7
47.5°	250.1	250.6	252.0	253.7	253.2	254.4	256.9	257.6	257.8	259.3	260.0
50°	220.5	221.7	223.6	223.1	224.6	225.3	227.5	228.0	228.0	228.2	228.4
52.5°	192.8	193.8	194.3	194.7	195.5	196.7	197.6	197.2	198.1	199.1	198.4
55°	165.4	166.1	167.3	167.8	167.8	168.0	167.5	169.7	168.7	168.5	168.7
57.5°	140.3	139.4	139.1	140.3	140.8	140.6	139.9	140.8	140.8	140.3	139.6
60°	116.0	115.3	115.1	115.3	114.3	113.6	114.1	113.6	112.4	111.9	112.2
62.5°	93.9	93.2	91.2	91.2	90.8	90.5	88.6	88.8	87.9	86.4	86.9
65°	73.4	71.5	70.5	70.3	68.6	67.2	66.7	65.0	63.6	63.3	63.6
67.5°	55.1	53.0	51.3	50.6	49.6	48.4	46.7	45.3	45.7	45.5	46.5
70°	38.3	36.8	35.1	33.9	34.4	33.0	32.0	32.0	32.3	32.5	33.0
72.5°	25.5	23.6	22.9	22.1	21.7	20.7	21.2	21.2	20.9	21.2	20.7
75°	14.4	13.5	12.8	12.5	12.0	12.0	12.0	12.0	11.8	11.6	11.6
77.5°	6.5	6.0	5.8	5.5	5.5	5.5	5.3	5.1	5.1	5.1	4.8
80°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
82.5°	1.0	1.0	1.2	1.2	1.2	1.0	1.2	1.2	1.0	1.0	1.2
85°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
87.5°	0.2	0.2	0.2	0.0	0.2	0.2	0.2	0.2	0.0	0.2	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: P856931

CATALOG NUMBER: LX4C15D010 EX4C159030 4LBLWW*

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0
2.5°	643.0	643.2	643.2	643.2	643.5	643.5	643.5	643.5
5°	641.3	641.5	641.5	641.5	641.8	641.8	641.8	641.8
7.5°	638.4	638.6	638.6	638.9	638.9	639.1	639.1	639.4
10°	635.0	635.5	635.7	636.0	636.2	636.5	636.5	636.7
12.5°	631.4	631.9	632.1	632.6	633.1	633.3	633.6	633.8
15°	626.1	627.1	627.6	627.8	628.8	629.2	629.5	629.7
17.5°	617.7	619.6	620.3	620.8	621.8	622.7	623.5	623.7
20°	605.7	607.8	608.8	610.0	611.4	612.6	613.1	613.6
22.5°	588.8	591.2	592.7	594.1	595.3	596.5	598.4	597.7
25°	564.7	568.8	570.5	571.2	573.9	575.3	576.3	575.3
27.5°	537.8	540.2	541.6	543.3	545.2	546.7	547.2	548.6
30°	505.3	509.4	509.1	510.8	513.2	514.7	515.1	516.4
32.5°	471.6	473.5	474.9	474.7	475.7	478.3	477.4	479.5
35°	435.7	435.9	438.4	438.1	440.0	440.0	440.0	441.5
37.5°	397.4	400.3	399.1	402.0	401.0	401.8	401.8	402.2
40°	362.5	363.5	363.5	364.5	365.2	364.5	364.9	366.1
42.5°	326.4	327.4	327.6	327.1	327.9	330.0	328.3	329.8
45°	292.7	293.4	294.4	293.7	294.9	294.2	294.9	294.4
47.5°	260.9	260.7	260.5	262.4	260.7	260.9	261.9	260.2
50°	228.4	229.9	228.9	229.6	230.1	230.1	229.4	229.4
52.5°	199.6	199.3	198.6	199.3	198.8	199.1	199.6	199.1
55°	169.7	170.7	170.2	170.0	170.2	170.2	171.6	169.7
57.5°	140.3	139.9	140.6	142.3	140.6	141.8	142.5	142.7
60°	112.4	112.4	113.9	113.1	114.6	115.8	116.8	116.3
62.5°	85.7	86.9	87.4	87.6	89.1	90.0	90.0	89.8
65°	63.6	65.2	65.2	66.2	66.7	66.7	67.2	68.1
67.5°	46.9	46.9	47.2	47.7	47.4	47.4	47.9	48.1
70°	32.7	32.3	33.0	32.7	32.7	32.5	32.7	32.7
72.5°	20.7	20.7	20.9	20.7	20.2	20.5	20.5	20.9
75°	11.1	11.6	11.1	11.1	11.3	10.8	11.1	11.3
77.5°	4.6	4.6	4.6	4.6	4.6	4.3	4.3	4.3
80°	2.2	2.2	2.2	2.2	2.2	2.2	1.9	1.9
82.5°	1.0	1.2	1.0	1.2	1.0	1.0	1.0	1.0
85°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
87.5°	0.0	0.2	0.0	0.2	0.0	0.0	0.0	0.2
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)