

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: P563891

Luminaire Tested: **LD4C08D010 EX4C08D2W 4LBSQLWWLI**

Issue Date: 2/18/2022



Test Information

Test Method: LM-79-08
Report Number: P563891
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P219529)
Test Lab: INNOVATION CENTER
Issue Date: 2/18/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C08D010 EX4C08D2W 4LBSQLWWLI
Description: 4 INCH 800 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS AND 4LBSQLWW TRIM WITH LI FINISH, DIM TO WARM
Light Source: -
Ballast/Driver: -

Summary

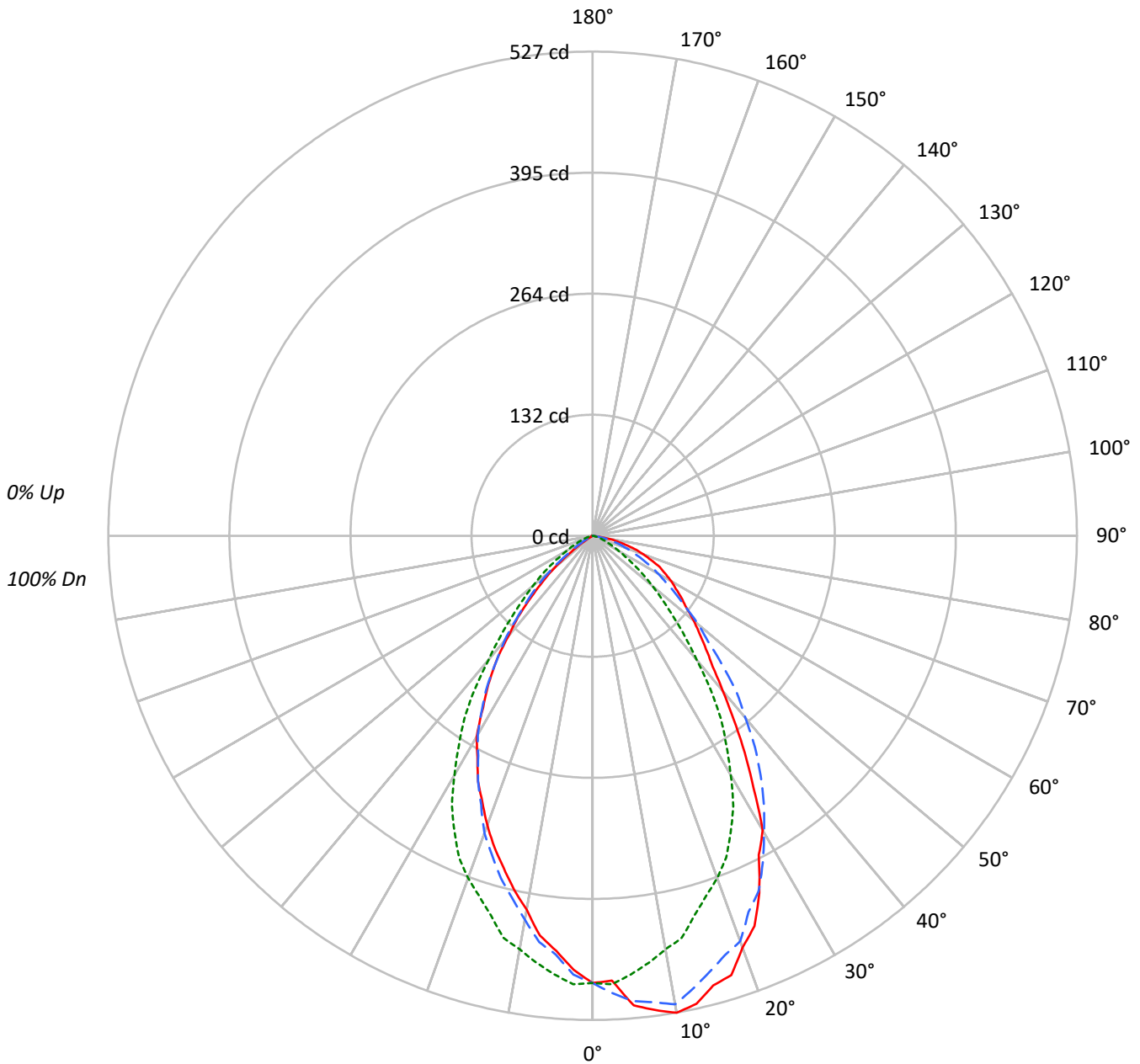
Lumens per Lamp: N/A
Luminaire Lumens: 697.8 lumens
Efficiency: N/A
Efficacy: 70.5 lumens/watt
Spacing Criteria (0/90/45): 1.01 / 1 / 1.06
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 9.9
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				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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90				90
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80				80
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72				72
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64				64
5	85	75	67	62	83	74	67	62	72	66	61	70	65	60	68	64	60	58				58
6	80	69	61	56	78	68	61	56	66	60	55	65	59	55	63	58	54	53				53
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48				48
8	70	59	52	47	69	58	51	46	57	51	46	56	50	46	55	50	46	44				44
9	66	55	48	43	65	54	47	43	53	47	43	52	46	42	51	46	42	41				41
10	62	51	44	40	61	51	44	40	50	44	39	49	43	39	48	43	39	38				38

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	46971	46971	46971
5°	49698	46414	43935
10°	51644	44776	40494
15°	50616	42734	37370
20°	48969	40693	34409
25°	45684	37848	31386
30°	41235	33492	28099
35°	33971	28670	23299
40°	27711	22131	17936
45°	23825	16811	12909
50°	21556	12789	8151
55°	19834	9219	2944
60°	19047	6310	444
65°	18402	4269	137
70°	16475	2962	169
75°	13496	1528	0
80°	8446	611	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.6	6.5
10°-20°	122.9	17.6
20°-30°	164.1	23.5
30°-40°	155.8	22.3
40°-50°	107.7	15.4
50°-60°	59.5	8.5
60°-70°	29.5	4.2
70°-80°	11.6	1.7
80°-90°	1.1	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°	332.6	47.7
0°-40°	488.3	70.0
0°-60°	655.5	93.9
0°-90°	697.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	697.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	487	487	487	487	487	
5°	513	508	479	458	454	49
15°	507	492	428	386	374	143
25°	429	427	356	295	295	196
35°	288	319	243	200	198	181
45°	175	200	123	101	95	136
55°	118	111	55	28	18	106
65°	81	58	19	1	1	78
75°	36	22	4	0	0	39
85°	0	1	0	0	0	3
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°	486.8	486.8	486.8	486.8	486.8	486.8	486.8	486.8	486.8	486.8	486.8
2.5°	484.5	497.9	499.0	497.9	499.6	499.0	502.0	499.0	502.6	497.3	498.5
5°	513.1	507.8	518.9	513.1	513.1	512.5	510.7	510.1	512.5	504.9	508.4
7.5°	520.7	528.2	538.2	525.9	526.5	526.5	523.0	521.8	521.8	507.8	512.0
10°	527.1	522.4	527.6	523.0	527.1	526.5	528.8	521.2	526.5	518.4	517.8
12.5°	521.8	520.1	527.1	519.5	517.1	517.8	514.8	513.1	514.8	505.4	504.9
15°	506.7	508.4	518.9	510.7	509.6	508.4	504.9	499.0	503.7	490.9	491.5
17.5°	501.4	498.5	500.3	493.2	495.0	493.9	493.2	488.0	486.8	478.6	478.6
20°	476.9	483.3	483.3	478.6	478.6	478.1	470.5	475.1	469.8	467.5	469.8
22.5°	460.0	460.6	460.6	456.4	457.0	454.7	450.6	447.7	450.6	447.7	443.0
25°	429.1	430.2	437.2	429.6	428.4	430.8	427.2	425.5	425.0	418.0	427.2
27.5°	391.6	403.3	402.7	399.9	403.3	398.6	396.9	397.5	399.3	398.6	401.0
30°	370.1	371.8	373.6	371.3	371.8	370.1	370.1	370.7	375.3	373.6	373.0
32.5°	326.3	332.1	336.8	336.8	337.4	339.1	338.5	350.8	353.7	347.9	346.8
35°	288.4	292.4	296.5	297.1	304.7	305.3	305.9	309.3	317.6	319.3	318.7
37.5°	252.2	256.2	257.5	262.6	266.7	270.9	275.6	280.1	287.2	293.1	290.1
40°	220.0	221.9	224.7	227.0	235.2	235.2	237.5	246.9	254.5	259.2	258.6
42.5°	193.2	193.8	196.1	200.2	207.8	206.1	207.8	214.2	225.3	225.9	232.3
45°	174.6	173.9	175.7	176.3	181.0	183.3	184.4	189.1	198.5	199.6	200.2
47.5°	157.6	157.1	159.9	161.1	162.9	165.2	165.2	165.8	169.3	172.2	169.9
50°	143.6	143.6	143.6	144.7	147.7	147.1	147.7	150.0	151.8	150.5	150.0
52.5°	128.4	130.7	132.5	133.0	133.7	133.7	134.3	133.0	132.5	130.7	127.3
55°	117.9	120.2	120.2	120.2	120.2	122.6	119.6	120.2	120.2	115.6	110.9
57.5°	107.4	109.8	111.5	109.1	111.5	109.1	108.0	107.4	106.2	101.5	94.6
60°	98.7	99.8	99.2	98.7	99.8	98.1	96.9	94.6	93.4	87.0	82.3
62.5°	88.7	89.3	89.9	88.7	87.6	87.0	84.6	81.2	78.8	73.5	69.5
65°	80.6	78.8	78.2	77.6	76.5	74.7	72.9	68.9	67.1	62.5	58.4
67.5°	68.3	67.7	68.9	67.1	64.2	64.2	62.5	59.0	54.8	52.0	47.9
70°	58.4	57.8	56.7	54.8	54.3	52.0	52.0	47.9	46.7	41.4	37.9
72.5°	47.9	47.9	46.1	44.3	42.6	41.4	40.9	37.9	36.2	33.3	30.3
75°	36.2	36.2	35.6	33.9	32.7	31.5	30.9	28.6	26.9	23.9	22.2
77.5°	25.6	25.6	23.4	22.2	22.8	21.6	20.4	19.8	19.2	17.5	15.2
80°	15.2	14.5	12.8	13.4	12.8	12.8	12.3	11.7	10.5	9.4	8.1
82.5°	4.1	4.7	4.7	4.7	5.3	4.1	4.1	4.1	4.7	4.7	2.9
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6
87.5°	0.6	1.1	2.3	2.3	2.3	2.3	2.3	1.7	1.7	1.7	1.1
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°	486.8	486.8	486.8	486.8	486.8	486.8	486.8	486.8	486.8	486.8	486.8
2.5°	492.6	492.0	492.6	488.6	497.9	490.9	489.7	488.6	492.6	488.6	482.8
5°	503.1	497.3	495.6	493.9	499.0	490.9	489.2	489.7	486.8	479.2	479.8
7.5°	506.7	501.4	496.2	485.1	489.7	488.0	483.3	479.8	475.1	468.7	467.5
10°	507.8	502.0	494.4	490.9	483.9	481.5	479.8	474.0	468.1	457.0	454.1
12.5°	504.3	497.3	488.0	485.1	479.8	472.2	468.1	462.3	457.0	448.3	441.9
15°	489.2	483.3	480.4	470.5	468.1	463.4	455.3	447.2	439.5	427.8	424.4
17.5°	471.7	469.3	466.4	458.8	458.2	453.6	445.9	438.9	429.1	410.9	405.0
20°	453.6	453.6	444.2	441.3	447.2	437.8	431.9	425.5	405.0	396.3	385.8
22.5°	440.1	433.7	428.4	423.8	424.4	418.5	410.3	397.5	389.9	379.4	367.1
25°	413.9	416.1	404.5	402.7	404.5	391.1	387.0	376.5	365.4	355.5	346.2
27.5°	397.5	391.1	383.5	377.1	377.1	371.8	360.2	357.9	340.9	331.5	319.9
30°	373.0	368.3	361.9	352.6	351.4	347.3	338.0	332.1	314.6	300.6	294.2
32.5°	342.1	340.4	335.1	324.6	321.0	316.3	304.7	294.8	286.6	270.9	263.3
35°	319.9	313.5	302.4	293.6	290.7	282.5	273.1	266.2	257.5	243.4	233.4
37.5°	286.6	280.1	269.7	259.2	259.2	251.0	238.1	231.1	218.9	210.7	202.5
40°	257.5	249.2	238.7	226.5	224.7	213.0	207.8	196.1	188.5	175.7	174.6
42.5°	224.7	217.2	207.8	198.5	191.4	185.6	172.2	163.5	155.3	148.8	147.1
45°	195.0	185.0	176.9	165.2	158.2	151.2	142.4	136.6	130.2	123.2	119.1
47.5°	169.3	161.1	149.4	138.9	131.9	128.4	118.5	112.1	106.8	102.1	99.2
50°	143.0	133.0	126.6	114.9	113.8	105.7	97.4	92.3	89.3	85.2	81.2
52.5°	123.2	113.8	105.1	96.3	91.6	88.7	81.2	75.9	71.8	68.9	66.5
55°	103.9	95.7	88.7	80.0	77.0	72.9	64.2	63.1	59.0	54.8	52.0
57.5°	89.3	81.7	73.5	67.7	62.5	59.5	52.5	47.9	45.6	42.0	39.1
60°	75.9	67.7	61.3	54.3	52.0	47.9	42.6	38.6	35.6	32.7	29.8
62.5°	63.6	56.7	49.6	43.7	40.3	37.9	33.9	30.3	27.5	25.1	22.8
65°	52.5	46.1	40.3	34.5	32.7	29.8	26.9	23.9	21.6	18.7	16.4
67.5°	43.2	37.3	31.5	27.5	25.6	24.5	21.1	18.1	16.4	14.5	12.3
70°	33.9	29.8	25.1	21.6	19.8	18.1	15.8	14.0	11.7	10.5	8.7
72.5°	26.2	22.8	18.7	15.8	14.5	13.4	11.1	9.4	8.1	7.0	5.8
75°	18.7	15.8	13.4	10.5	10.0	9.4	7.6	6.4	5.3	4.1	3.5
77.5°	12.8	10.5	8.1	7.0	6.4	5.3	4.7	3.5	2.9	2.3	1.7
80°	7.0	5.3	4.1	3.5	2.9	2.3	2.3	1.7	1.1	1.1	0.6
82.5°	2.3	1.7	1.1	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.6
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	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°	486.8	486.8	486.8	486.8	486.8	486.8	486.8	486.8	486.8	486.8	486.8
2.5°	486.2	479.8	481.5	481.5	480.4	480.4	479.2	477.5	478.1	474.5	467.0
5°	480.9	472.8	471.7	472.8	468.1	467.0	464.7	468.1	457.6	461.7	457.0
7.5°	465.8	458.2	456.4	460.6	454.7	451.2	450.6	455.3	445.9	441.3	436.1
10°	448.9	445.9	440.7	437.8	436.1	436.6	431.9	426.1	424.4	423.2	418.5
12.5°	433.7	427.2	422.6	419.1	418.0	418.0	410.3	409.2	403.9	402.7	395.8
15°	415.6	408.0	405.0	400.5	396.3	398.6	389.9	387.6	385.8	378.2	379.4
17.5°	399.9	391.6	384.7	381.8	378.2	374.7	366.6	368.3	364.3	364.3	353.7
20°	379.4	370.7	365.4	359.6	359.6	354.9	349.1	349.6	344.4	339.1	329.8
22.5°	357.9	348.5	342.1	339.7	333.8	332.7	325.7	324.0	317.0	317.6	309.3
25°	335.1	325.7	317.0	317.6	312.3	309.9	305.9	297.7	294.8	291.3	289.0
27.5°	308.2	301.8	294.2	293.6	283.7	284.2	279.0	276.7	269.7	271.4	266.2
30°	283.7	274.3	267.3	265.6	261.5	260.3	252.2	248.6	249.8	245.1	242.2
32.5°	258.6	244.5	241.7	238.1	235.8	232.9	227.0	229.4	224.1	225.3	220.6
35°	225.3	219.5	211.9	211.9	209.5	207.2	203.1	205.5	200.2	197.8	193.2
37.5°	197.3	192.0	184.4	186.8	182.7	179.2	175.7	176.3	171.6	171.0	166.3
40°	166.9	164.0	158.8	158.8	155.8	155.8	154.1	152.4	149.4	146.0	140.7
42.5°	138.3	136.0	133.7	134.3	130.2	133.7	129.0	131.9	122.6	122.0	118.5
45°	117.3	112.1	112.6	110.4	108.0	109.1	105.1	106.2	101.0	99.8	96.3
47.5°	95.1	93.4	89.9	88.7	88.7	87.0	85.2	84.6	82.3	79.3	74.7
50°	78.2	71.8	70.6	68.9	67.7	67.7	65.4	61.8	62.5	59.5	54.8
52.5°	61.3	56.0	53.7	53.1	50.8	49.6	46.7	44.3	42.6	41.4	38.6
55°	47.3	42.6	39.7	39.7	36.2	36.2	32.1	30.3	28.0	25.6	23.9
57.5°	35.6	33.3	30.3	28.0	26.9	23.9	21.6	18.7	16.9	13.4	11.1
60°	26.9	24.5	21.6	19.8	18.7	15.8	12.8	10.5	6.4	5.3	4.7
62.5°	19.8	17.5	14.5	13.4	12.3	10.0	7.0	3.5	1.7	1.7	1.7
65°	14.5	11.7	9.4	8.1	7.0	5.3	2.3	1.1	0.6	0.6	0.6
67.5°	10.0	7.6	5.3	4.7	3.5	1.7	0.6	0.6	0.6	0.6	0.6
70°	6.4	4.7	2.3	1.7	1.1	0.6	0.6	0.6	0.6	0.6	0.6
72.5°	4.1	2.3	1.1	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	2.3	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	1.1	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6
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: P563891

CATALOG NUMBER: LD4C08D010 EX4C08D2W 4LBSQLWWLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	486.8	486.8	486.8	486.8	486.8	486.8	486.8	486.8
2.5°	475.1	471.1	473.4	468.1	470.5	474.5	471.7	472.8
5°	458.8	456.4	453.6	445.9	451.7	456.4	454.1	453.6
7.5°	441.3	433.1	437.2	434.9	433.7	438.4	433.1	438.9
10°	423.2	417.4	416.7	412.7	412.7	416.1	416.7	413.3
12.5°	396.3	393.5	393.5	392.8	392.2	395.8	396.3	394.6
15°	377.1	376.0	373.0	372.4	368.9	374.1	374.7	374.1
17.5°	353.7	354.3	351.4	351.4	353.7	355.5	350.8	355.5
20°	338.0	335.1	333.8	328.7	331.5	334.5	334.5	335.1
22.5°	315.2	310.6	312.3	309.3	307.6	311.7	311.7	313.5
25°	289.5	289.5	290.7	289.0	290.1	292.4	290.7	294.8
27.5°	265.0	267.3	267.3	265.0	266.2	273.1	276.1	271.4
30°	242.2	242.8	244.5	243.4	246.9	249.2	248.6	252.2
32.5°	216.6	219.5	220.6	218.9	220.0	225.3	222.4	221.9
35°	196.7	191.4	190.9	191.4	193.8	195.0	193.8	197.8
37.5°	168.1	166.3	164.0	164.6	166.3	168.7	169.9	172.7
40°	140.7	138.3	138.3	137.7	136.0	142.4	142.4	142.4
42.5°	116.8	116.2	113.2	113.2	115.6	117.3	116.2	120.2
45°	95.7	93.4	91.6	91.6	93.4	93.4	95.1	94.6
47.5°	75.3	72.9	73.5	71.8	73.5	75.9	72.9	73.5
50°	56.7	56.7	55.4	56.7	56.0	56.7	55.4	54.3
52.5°	38.6	43.7	44.3	42.0	36.8	32.1	29.2	31.5
55°	22.2	19.8	19.8	19.2	18.1	17.5	15.8	17.5
57.5°	11.1	10.0	10.0	10.0	9.4	8.7	7.6	7.6
60°	4.7	4.1	4.1	3.5	2.9	2.3	1.7	2.3
62.5°	1.7	1.1	1.1	1.1	1.1	1.1	1.1	1.1
65°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
67.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
70°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	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)