

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: P843279

Luminaire Tested: **LD4C08DE010B2750 EU4C08B50 4LBSWLI**

Issue Date: 5/7/2024



Test Information

Test Method: LM-79-08
Report Number: P843279
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P251556)
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C08DE010B2750 EU4C08B50 4LBSWLI
Description: 4in Downlight with BioUp LEDs
Light Source: -
Ballast/Driver:

Summary

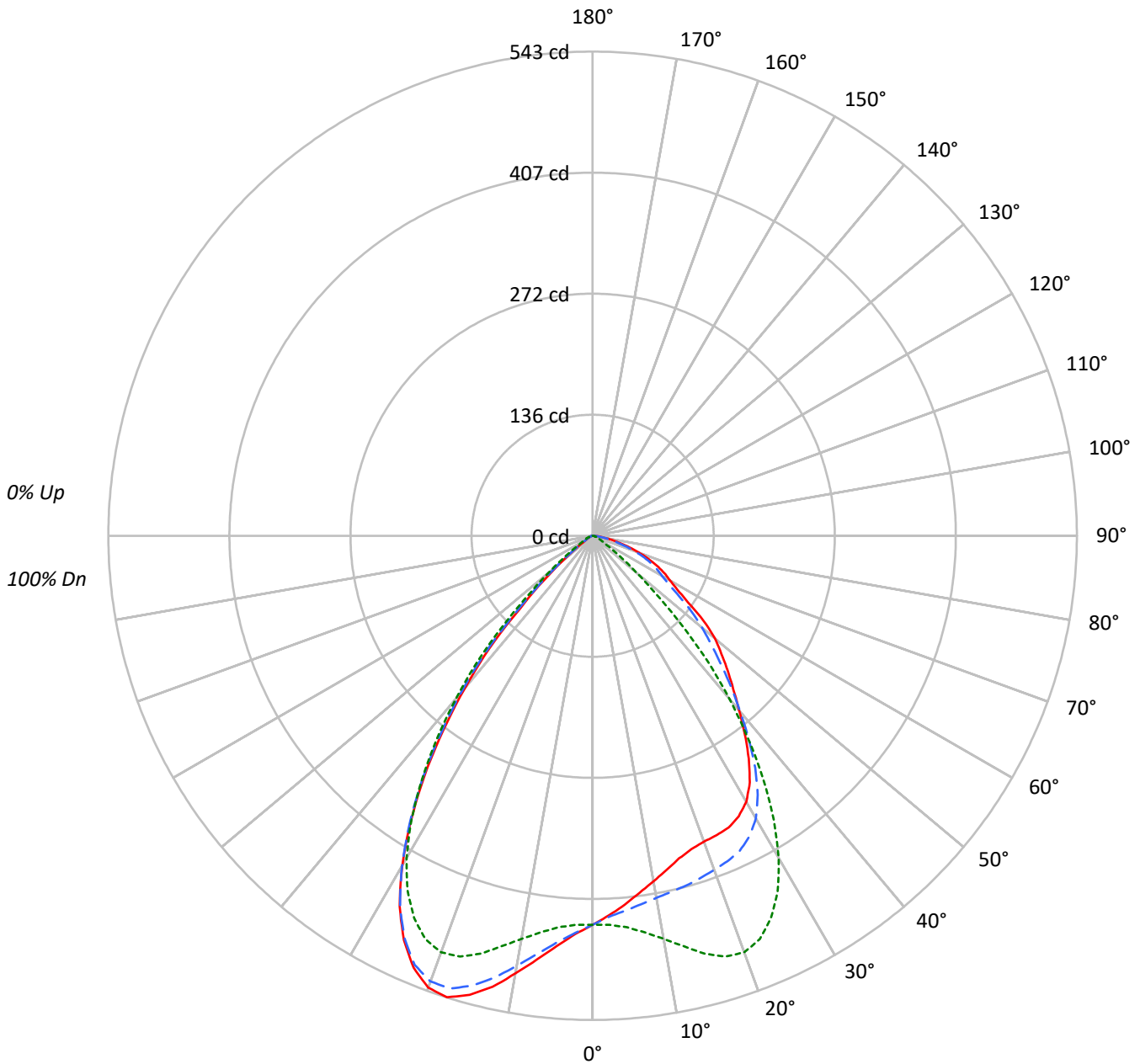
Lumens per Lamp: N/A
Luminaire Lumens: 804.9 lumens
Efficiency: N/A
Efficacy: 83.8 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.19
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 9.6
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									
RC	80									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																			
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90																			
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	85	82	80																			
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72																			
4	91	81	75	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64																			
5	85	75	67	62	83	74	67	62	72	66	61	70	65	60	68	64	60	58																			
6	79	69	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53																			
7	75	63	56	51	73	62	55	51	61	55	50	60	54	50	58	53	50	48																			
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44																			
9	66	54	47	42	65	54	47	42	53	46	42	52	46	42	51	46	42	40																			
10	62	51	44	39	61	50	43	39	49	43	39	48	43	39	47	42	39	37																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	53589	53589	53589
5°	51191	54348	56950
10°	49076	57247	62162
15°	47644	61699	67778
20°	47719	64990	70494
25°	48935	64144	67845
30°	48870	59198	60588
35°	45773	50047	49357
40°	40992	38169	35619
45°	37198	24237	19876
50°	34173	12289	8486
55°	28037	5483	2806
60°	24620	3096	1523
65°	23168	2296	1163
70°	19828	1868	1042
75°	15094	1377	807
80°	10825	849	354
85°	8035	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.4	5.3
10°-20°	132.0	16.4
20°-30°	204.3	25.4
30°-40°	201.3	25.0
40°-50°	123.6	15.4
50°-60°	55.0	6.8
60°-70°	30.7	3.8
70°-80°	13.3	1.7
80°-90°	2.4	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°	378.7	47.0
0°-40°	580.0	72.1
0°-60°	758.5	94.2
0°-90°	804.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	804.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	436	436	436	436	436	
5°	415	422	441	458	462	39
15°	375	406	485	522	533	106
25°	361	390	473	499	500	166
35°	305	318	334	332	329	189
45°	214	203	140	122	114	166
55°	131	118	26	15	13	120
65°	80	72	8	4	4	78
75°	32	27	3	2	2	35
85°	6	4	0	0	0	7
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°	436.2	436.2	436.2	436.2	436.2	436.2	436.2	436.2	436.2	436.2	436.2
2.5°	425.9	425.9	425.9	425.9	427.1	425.4	427.1	427.1	428.8	429.3	427.6
5°	415.1	414.5	415.1	415.1	416.2	415.7	417.3	418.5	420.8	421.9	421.9
7.5°	403.7	403.7	403.7	404.9	406.6	406.0	407.7	409.4	412.8	415.1	416.8
10°	393.4	392.9	394.6	395.1	396.8	396.8	399.7	401.5	405.4	409.9	412.3
12.5°	383.7	383.2	384.3	386.0	388.9	388.9	391.1	394.0	399.7	404.9	408.8
15°	374.6	375.2	376.9	378.1	381.5	381.5	384.3	387.7	394.0	400.3	406.0
17.5°	368.4	369.0	370.1	371.8	375.2	375.2	378.1	382.0	388.9	395.8	402.5
20°	365.0	365.5	366.7	368.4	371.2	371.8	374.1	378.6	384.9	392.3	398.6
22.5°	363.3	364.5	365.5	366.7	369.5	369.5	372.4	375.8	382.0	389.4	395.1
25°	361.0	362.1	362.7	364.5	366.7	366.7	368.4	372.4	378.1	384.3	390.1
27.5°	354.7	355.9	356.4	358.1	360.4	359.8	362.1	365.0	370.1	375.8	380.3
30°	344.5	345.1	346.2	346.8	348.5	348.5	350.2	353.0	356.4	361.6	366.2
32.5°	328.0	329.1	329.7	330.2	332.0	331.4	332.0	333.7	337.1	341.6	344.5
35°	305.2	307.5	307.5	308.6	309.1	308.6	308.6	310.8	312.6	316.0	317.7
37.5°	280.2	281.9	281.2	282.4	283.0	281.2	282.4	283.0	285.2	286.9	287.6
40°	255.6	256.3	256.3	256.3	256.3	255.6	256.3	256.8	258.5	258.5	256.8
42.5°	233.4	234.1	234.1	232.9	234.1	233.4	233.4	233.4	233.4	231.2	229.5
45°	214.1	214.7	214.7	214.1	214.1	212.9	212.4	211.8	210.0	207.3	203.3
47.5°	195.9	197.0	197.6	196.4	195.9	194.7	194.7	191.3	189.0	185.6	179.9
50°	178.8	179.9	179.9	178.8	178.8	177.0	175.4	174.2	170.8	166.8	160.0
52.5°	157.2	158.9	158.9	158.3	158.3	156.0	155.5	153.1	150.3	145.7	140.0
55°	130.9	133.3	132.6	132.1	130.9	130.9	130.9	129.2	127.6	124.2	118.5
57.5°	112.2	112.7	112.7	112.2	112.2	111.1	111.1	109.4	108.7	105.3	100.8
60°	100.2	100.2	100.8	100.2	99.6	99.1	98.5	97.4	95.6	93.4	90.0
62.5°	90.5	91.1	91.1	90.5	90.0	89.4	88.8	87.7	86.5	84.8	81.4
65°	79.7	80.8	80.3	79.7	79.1	78.6	78.6	77.4	76.3	75.2	71.7
67.5°	67.8	68.3	68.9	67.8	67.8	67.2	67.2	66.1	65.5	63.2	60.9
70°	55.2	55.8	55.8	55.2	55.2	54.7	54.7	54.0	53.5	51.8	49.5
72.5°	43.3	43.8	43.3	42.7	42.7	42.7	42.1	41.6	41.0	39.9	38.2
75°	31.8	31.8	32.5	31.8	31.3	31.3	30.8	30.8	29.6	29.1	27.3
77.5°	22.7	23.4	22.7	22.7	22.2	21.7	21.7	21.0	21.0	20.5	19.4
80°	15.3	15.3	16.0	15.3	14.8	15.3	14.8	14.3	14.3	13.6	12.6
82.5°	9.7	10.3	9.7	9.7	9.7	9.7	9.7	9.1	9.1	8.6	7.9
85°	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.2	5.2	5.2	4.5
87.5°	2.9	2.9	2.3	2.3	2.9	2.9	2.9	2.3	2.3	2.3	2.3
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°	436.2	436.2	436.2	436.2	436.2	436.2	436.2	436.2	436.2	436.2	436.2
2.5°	429.9	430.5	431.6	433.3	433.3	432.1	435.0	435.0	436.2	436.7	439.0
5°	425.4	426.4	428.8	431.6	432.1	431.6	435.5	437.3	439.0	440.7	444.1
7.5°	421.4	423.6	427.6	431.6	433.3	433.3	439.6	441.9	445.3	448.6	452.7
10°	419.0	422.5	428.1	434.5	436.2	437.9	445.3	449.8	454.4	458.9	464.6
12.5°	416.2	422.5	429.9	437.9	441.2	443.6	453.8	459.5	465.8	471.5	478.9
15°	415.7	423.1	432.8	442.9	447.5	451.0	462.4	470.3	477.7	485.1	492.5
17.5°	413.4	422.5	434.5	445.8	451.5	456.1	469.2	478.9	487.4	494.8	503.3
20°	410.6	420.8	433.8	446.4	452.7	457.2	471.5	480.6	490.2	497.1	505.0
22.5°	406.6	416.8	429.9	442.4	448.1	452.0	466.3	474.3	482.8	489.7	497.1
25°	399.7	409.4	420.8	431.0	436.7	440.1	452.7	460.1	466.3	473.2	480.0
27.5°	390.1	397.5	407.1	414.5	418.0	421.4	431.6	437.9	443.6	449.3	453.8
30°	372.9	378.6	385.5	391.7	395.1	395.8	405.4	408.8	413.4	417.3	420.8
32.5°	350.2	354.7	358.7	362.1	364.5	365.0	372.4	373.6	378.1	378.1	383.2
35°	321.1	323.4	326.3	326.3	328.0	326.3	331.4	332.5	333.0	333.7	337.6
37.5°	288.1	289.3	291.0	287.6	287.6	285.9	287.6	288.7	286.4	286.4	289.3
40°	256.8	254.5	252.2	248.9	247.2	243.7	243.7	240.8	239.1	238.0	238.6
42.5°	226.7	221.5	216.4	209.0	205.5	202.1	198.7	194.7	193.5	190.8	189.0
45°	197.6	190.2	183.4	171.3	164.6	161.1	153.8	145.7	140.7	139.5	135.0
47.5°	173.1	162.2	150.9	136.6	129.9	123.5	112.7	105.9	99.1	95.6	92.8
50°	151.5	141.8	127.0	111.6	103.0	96.8	84.8	76.9	69.5	64.3	60.9
52.5°	132.6	121.8	108.2	90.5	82.0	75.2	62.1	53.0	46.6	41.6	37.5
55°	111.6	103.0	89.4	72.9	64.3	56.4	44.9	35.3	29.1	25.6	22.7
57.5°	96.2	88.8	75.7	59.8	51.8	44.4	33.0	25.1	19.9	16.5	14.8
60°	86.0	79.1	67.8	52.4	44.9	38.2	27.3	19.9	15.3	12.6	11.4
62.5°	77.4	70.6	60.4	46.1	39.9	33.0	23.4	16.5	12.6	10.3	8.6
65°	67.8	61.6	52.4	39.9	34.2	28.5	19.9	13.6	10.3	7.9	6.9
67.5°	57.5	51.8	43.8	33.0	28.5	23.9	16.0	11.4	8.6	6.9	5.7
70°	46.6	42.1	34.7	26.8	22.7	18.8	13.1	9.1	6.2	5.2	4.5
72.5°	35.9	31.8	26.8	20.5	17.1	14.3	9.7	6.9	5.2	4.0	3.4
75°	25.6	22.7	18.8	14.8	12.6	10.3	7.4	5.2	3.4	2.9	2.3
77.5°	17.7	16.0	13.1	10.3	8.6	7.4	5.2	3.4	2.9	2.3	1.7
80°	11.4	10.3	8.6	6.2	5.2	4.5	2.9	2.3	1.7	1.2	1.2
82.5°	6.9	6.2	5.2	3.4	2.9	2.3	1.7	1.2	1.2	0.5	0.5
85°	4.0	3.4	2.3	1.7	1.7	1.2	1.2	0.5	0.5	0.0	0.0
87.5°	1.7	1.2	1.2	0.5	0.5	0.5	0.5	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):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	436.2	436.2	436.2	436.2	436.2	436.2	436.2	436.2	436.2	436.2	436.2
2.5°	437.9	440.7	440.1	441.9	441.2	441.2	444.1	442.9	445.8	445.8	446.4
5°	444.1	448.1	448.1	451.0	450.3	451.5	454.4	454.4	457.7	458.9	458.9
7.5°	453.2	458.4	459.5	462.4	462.9	465.1	467.5	468.0	472.6	473.7	474.3
10°	465.8	472.0	473.7	476.6	477.7	480.0	482.8	484.0	489.7	490.2	492.5
12.5°	481.1	488.0	489.7	493.1	493.7	496.5	500.5	501.6	507.3	509.0	510.7
15°	495.9	502.2	505.0	508.4	509.0	512.4	515.9	517.0	522.2	524.4	526.2
17.5°	506.2	513.6	515.3	519.8	519.8	522.7	526.2	527.2	532.4	534.1	535.3
20°	508.4	515.3	517.6	521.0	521.5	523.3	526.2	527.2	531.8	532.4	534.1
22.5°	499.9	506.7	507.9	511.3	511.9	513.6	515.9	515.3	521.0	520.5	521.0
25°	481.8	488.0	488.0	491.9	491.4	493.1	494.2	493.7	498.8	498.8	498.8
27.5°	455.5	461.2	461.8	464.6	462.9	463.5	464.6	464.1	467.5	467.5	467.5
30°	423.1	427.6	425.9	428.1	427.1	428.1	427.1	426.4	427.6	428.8	428.1
32.5°	382.7	386.0	386.0	386.6	386.6	383.2	382.0	382.0	381.5	381.0	381.0
35°	335.9	338.8	337.6	337.6	337.1	333.7	332.0	330.8	332.5	329.1	331.4
37.5°	288.1	288.7	286.9	286.4	283.6	283.6	280.7	278.4	279.5	279.0	276.7
40°	235.7	238.0	234.6	233.4	235.2	232.9	230.0	227.2	229.5	226.7	227.7
42.5°	184.5	183.9	182.8	182.8	182.8	179.4	178.8	178.2	178.8	176.5	174.8
45°	133.3	131.6	129.9	129.9	127.6	126.4	126.4	124.7	121.8	121.8	118.5
47.5°	90.0	86.0	84.8	84.3	83.1	83.1	82.0	80.8	80.3	77.4	77.4
50°	58.7	54.7	53.5	53.0	53.5	52.4	51.2	50.1	49.0	48.4	47.3
52.5°	35.3	33.6	32.5	31.8	30.8	30.1	29.6	28.5	27.9	27.9	27.3
55°	21.0	19.4	17.1	17.1	17.1	16.5	16.0	15.3	14.8	14.8	14.3
57.5°	13.1	12.0	10.8	10.3	10.3	10.3	9.7	9.7	9.7	9.7	9.1
60°	9.7	8.6	7.9	7.9	7.9	7.4	7.4	7.4	7.4	6.9	6.9
62.5°	7.4	6.9	6.2	6.2	5.7	5.7	5.7	5.7	5.7	5.7	5.2
65°	6.2	5.2	5.2	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
67.5°	4.5	4.0	4.0	4.0	4.0	3.4	3.4	3.4	3.4	3.4	3.4
70°	3.4	3.4	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
72.5°	2.9	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
75°	2.3	2.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
77.5°	1.7	1.7	1.7	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
80°	1.2	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
82.5°	0.5	0.5	0.5	0.5	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	0.0	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):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	436.2	436.2	436.2	436.2	436.2	436.2	436.2	436.2
2.5°	446.4	449.3	446.4	446.4	448.1	447.5	448.6	447.0
5°	459.5	463.5	460.6	460.1	462.9	462.4	462.9	461.8
7.5°	475.4	479.4	476.6	476.6	479.4	478.9	480.6	479.4
10°	493.7	498.3	494.2	494.8	498.8	498.3	498.3	498.3
12.5°	512.4	517.0	514.8	514.8	517.6	518.1	518.8	518.1
15°	527.9	532.4	529.6	529.6	533.5	532.9	533.5	532.9
17.5°	537.0	541.5	538.1	538.1	541.5	541.5	542.0	542.7
20°	534.6	539.8	537.0	535.8	539.8	539.8	539.2	539.2
22.5°	521.5	526.2	523.8	522.7	525.5	524.4	523.8	524.4
25°	498.8	503.3	498.8	498.8	501.0	500.5	501.0	500.5
27.5°	468.0	471.5	466.9	466.3	468.6	467.5	466.9	468.6
30°	427.1	430.5	428.1	426.4	429.3	427.6	426.4	427.1
32.5°	380.3	382.7	381.5	378.6	380.3	379.2	378.6	379.2
35°	329.1	332.0	327.4	326.8	329.7	327.4	326.3	329.1
37.5°	276.1	279.5	275.6	276.1	274.5	275.0	273.8	275.6
40°	226.0	225.5	224.3	223.8	224.3	222.6	223.8	222.1
42.5°	172.0	173.1	172.5	172.0	172.5	170.3	169.1	171.3
45°	119.6	119.0	117.8	116.8	116.8	116.1	116.1	114.4
47.5°	76.9	76.3	74.0	74.6	75.7	74.6	72.9	75.2
50°	46.6	46.1	46.1	45.6	46.6	45.6	44.4	44.4
52.5°	26.2	26.2	25.6	25.6	25.6	25.6	25.1	24.5
55°	14.3	13.6	13.6	13.6	13.1	13.1	13.1	13.1
57.5°	9.1	9.1	9.1	9.1	9.1	9.1	8.6	8.6
60°	6.9	6.9	6.9	6.9	6.2	6.9	6.2	6.2
62.5°	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
65°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
67.5°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
70°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
72.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
75°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
77.5°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
80°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
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)