

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: P856789

Luminaire Tested: **LX4C10D010 EX4C109050 4LBLWWH**

Issue Date: 2/14/2022

Test Information

Test Method: LM-79-08
Report Number: P856789
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: LX4C10D010 EX4C109050 4LBLWWH
Description: 4 INCH 1000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS
AND 4LRLWW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Summary

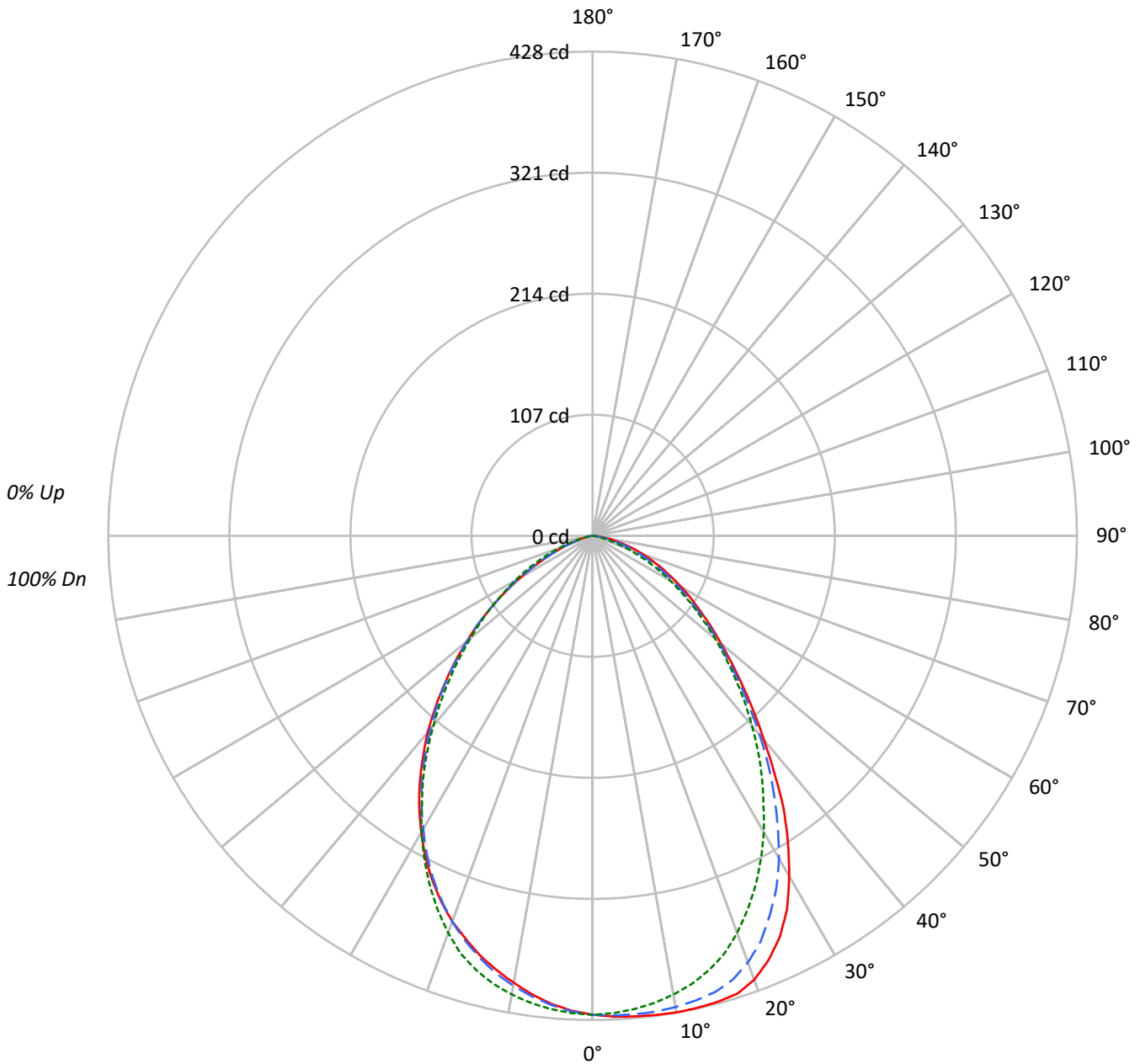
Lumens per Lamp: N/A
Luminaire Lumens: 798.0 lumens
Efficiency: N/A
Efficacy: 81.4 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.09 / 1.17
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 9.8
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									
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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	88																			
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77																			
3	95	86	79	74	93	85	78	73	82	76	72	79	75	71	77	73	70	68																			
4	88	78	70	64	86	77	69	64	74	68	63	72	67	62	70	65	62	60																			
5	82	71	63	57	80	69	62	57	67	61	56	66	60	55	64	59	55	53																			
6	76	64	56	51	74	63	56	50	62	55	50	60	54	50	59	53	49	47																			
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	44	43																			
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	40	39																			
9	62	50	43	38	61	50	42	37	48	42	37	47	41	37	47	41	37	35																			
10	59	47	39	34	58	46	39	34	45	39	34	44	38	34	43	38	34	32																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	52016	52016	52016
5°	52597	51796	51241
10°	53367	51359	50062
15°	54245	50544	48865
20°	54596	48818	47419
25°	53029	46183	45478
30°	49282	42927	42955
35°	44108	39129	39954
40°	37768	35074	36357
45°	32507	30926	32090
50°	28268	26930	27732
55°	24867	23154	22961
60°	22138	19337	17814
65°	19418	15494	12878
70°	16667	10956	8729
75°	13528	6361	5079
80°	9693	2759	2547
85°	3665	1128	1128



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.9	5.0
10°-20°	113.0	14.2
20°-30°	161.3	20.2
30°-40°	168.7	21.1
40°-50°	141.4	17.7
50°-60°	99.0	12.4
60°-70°	53.9	6.8
70°-80°	18.7	2.3
80°-90°	2.2	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°	314.2	39.4
0°-40°	482.9	60.5
0°-60°	723.3	90.6
0°-90°	798.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	798.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	423	423	423	423	423	
5°	426	425	420	416	416	41
15°	426	418	397	386	384	120
25°	391	370	341	334	336	179
35°	294	280	261	263	266	182
45°	187	183	178	184	185	146
55°	116	112	108	108	107	105
65°	67	61	53	45	44	66
75°	28	23	13	11	11	31
85°	3	2	1	1	1	5
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°	423.4	423.4	423.4	423.4	423.4	423.4	423.4	423.4	423.4	423.4	423.4
2.5°	425.4	424.9	425.1	425.1	425.1	424.9	425.1	424.9	424.9	424.7	424.4
5°	426.5	426.2	426.2	426.2	426.0	425.9	425.9	425.7	425.4	425.2	424.6
7.5°	427.3	427.0	427.0	426.9	426.7	426.5	426.4	425.9	425.4	425.1	424.3
10°	427.8	427.3	427.3	427.0	426.7	426.5	426.2	425.6	424.9	424.1	422.9
12.5°	427.5	427.0	426.9	426.5	425.9	425.6	425.2	424.4	423.3	422.1	420.7
15°	426.5	426.2	425.9	425.4	424.6	424.1	423.8	422.5	421.0	419.4	417.6
17.5°	424.6	424.1	423.4	422.8	421.6	421.2	420.3	418.7	416.6	414.3	411.5
20°	417.6	417.2	416.6	415.5	413.7	413.0	411.9	409.8	407.0	404.2	401.3
22.5°	406.0	405.5	404.5	403.6	401.9	400.8	399.8	396.9	393.8	390.9	388.1
25°	391.2	390.7	389.4	388.1	386.5	384.5	383.5	381.3	378.2	374.4	370.3
27.5°	372.1	370.5	370.0	368.6	366.1	365.5	364.0	361.1	358.1	354.9	351.5
30°	347.4	347.4	346.4	345.8	343.5	342.8	341.2	338.1	336.5	331.9	329.3
32.5°	321.2	320.8	320.0	319.5	318.2	317.1	315.5	313.8	310.2	308.0	304.4
35°	294.1	292.2	292.5	291.5	290.7	289.4	289.2	287.4	284.2	282.9	279.6
37.5°	263.3	262.5	263.7	262.2	261.4	261.6	260.3	259.1	257.8	255.5	254.9
40°	235.5	236.1	236.0	234.7	235.3	234.5	233.2	232.1	231.4	230.0	229.5
42.5°	210.6	209.6	209.3	209.3	209.4	209.4	208.8	208.0	208.0	206.5	205.0
45°	187.1	187.1	186.8	187.8	186.3	186.3	185.8	185.7	185.0	184.7	182.9
47.5°	166.9	166.8	166.6	166.4	166.3	166.3	165.3	164.5	164.3	163.3	162.4
50°	147.9	148.9	148.5	147.7	147.4	147.6	146.9	146.4	146.2	144.6	144.8
52.5°	131.9	131.8	132.1	131.6	130.8	130.9	130.3	129.6	129.0	128.2	127.5
55°	116.1	116.9	116.6	116.1	116.0	115.6	115.1	114.3	114.2	112.4	112.2
57.5°	102.9	102.8	102.4	101.6	101.5	101.0	101.0	100.3	99.3	98.4	97.6
60°	90.1	90.1	89.6	89.4	88.8	88.6	88.4	87.8	86.6	85.8	84.5
62.5°	77.7	78.0	77.7	77.2	76.7	76.1	75.7	75.2	74.3	73.5	72.3
65°	66.8	66.6	66.4	65.8	65.6	65.0	64.8	63.8	62.9	62.2	60.9
67.5°	56.3	55.9	55.9	55.5	55.2	54.7	54.4	53.4	52.3	51.6	50.3
70°	46.4	46.1	46.1	46.1	45.3	44.8	44.6	44.1	42.5	41.9	40.6
72.5°	37.3	37.1	37.0	36.5	36.0	36.0	35.3	34.4	33.5	32.7	31.8
75°	28.5	28.8	28.5	27.8	27.7	27.4	26.9	26.1	25.2	24.3	23.1
77.5°	20.8	20.5	20.2	20.2	19.9	19.2	19.1	18.4	17.4	16.8	15.6
80°	13.7	13.5	13.2	12.9	12.7	12.5	12.4	11.7	10.7	10.3	9.3
82.5°	7.5	7.3	7.3	7.2	6.7	6.7	6.5	5.9	5.4	5.0	4.6
85°	2.6	2.6	2.6	2.4	2.4	2.4	2.3	2.1	2.0	1.8	1.5
87.5°	0.3	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2
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°	423.4	423.4	423.4	423.4	423.4	423.4	423.4	423.4	423.4	423.4	423.4
2.5°	424.1	423.8	423.6	423.4	423.3	423.1	422.9	422.6	422.5	422.3	422.0
5°	424.1	423.4	423.1	422.6	422.3	422.0	421.5	421.0	420.5	420.0	419.5
7.5°	423.4	422.5	421.8	420.8	420.5	420.0	419.0	418.4	417.6	416.6	415.5
10°	421.8	420.7	419.4	418.1	417.6	416.8	415.5	414.3	413.0	411.7	410.6
12.5°	419.2	417.4	415.8	414.0	413.0	412.2	410.4	408.8	407.2	405.7	403.7
15°	415.3	413.2	411.1	408.6	407.5	406.5	403.9	401.9	399.3	397.4	395.4
17.5°	408.9	405.7	403.1	400.0	398.4	397.2	394.9	391.8	389.4	387.3	385.0
20°	398.0	394.9	391.4	387.9	386.1	384.7	381.4	378.2	375.7	373.4	371.0
22.5°	383.7	379.8	377.2	373.0	371.5	369.7	365.8	362.9	360.1	357.8	355.5
25°	366.3	362.9	359.3	355.4	353.6	351.5	348.2	345.1	343.3	340.7	337.9
27.5°	346.2	343.5	339.1	335.7	333.9	332.2	329.1	326.4	323.8	322.0	319.4
30°	325.1	321.8	317.9	314.3	313.3	311.4	308.6	306.5	303.7	302.6	301.5
32.5°	301.8	298.0	295.1	292.8	290.9	289.2	287.8	284.4	283.9	280.9	280.6
35°	276.4	274.7	272.0	270.0	268.4	267.3	264.8	263.2	261.4	260.9	259.8
37.5°	252.4	250.5	247.9	246.1	244.9	244.8	243.0	242.0	240.7	240.1	238.8
40°	227.4	226.5	224.3	223.9	222.1	222.0	221.0	219.9	218.7	218.7	218.9
42.5°	204.2	203.3	202.3	201.1	200.2	200.2	199.7	199.3	199.0	198.5	199.3
45°	182.6	181.3	180.6	179.5	180.0	179.0	178.7	178.7	178.2	178.0	179.1
47.5°	162.4	160.9	160.3	159.9	159.9	160.1	158.6	159.1	159.0	159.3	159.8
50°	144.0	142.7	141.7	141.7	141.9	141.2	140.5	141.0	140.5	140.9	142.0
52.5°	126.9	125.6	125.1	125.1	124.1	123.9	124.3	123.6	123.8	123.9	124.6
55°	111.1	110.3	109.4	108.6	108.8	108.5	107.8	107.7	108.0	108.1	109.0
57.5°	96.9	95.8	94.6	94.3	94.0	94.0	93.2	93.0	93.3	92.5	92.5
60°	83.4	82.7	81.3	80.8	80.8	80.0	79.3	79.6	78.8	78.7	78.8
62.5°	70.8	70.4	69.4	68.4	68.1	67.8	66.9	66.6	66.3	65.6	64.7
65°	59.9	58.8	57.7	57.0	56.5	55.7	55.2	54.6	53.6	53.3	52.3
67.5°	49.0	47.9	46.7	46.3	45.8	45.3	44.5	43.6	42.5	41.2	40.1
70°	39.4	37.9	37.3	36.0	35.7	35.0	33.9	33.1	31.9	30.5	29.3
72.5°	30.1	29.2	28.2	27.0	26.2	25.7	24.8	23.5	22.1	21.3	20.2
75°	21.7	21.2	19.9	18.6	18.2	17.6	16.4	15.6	14.7	13.4	12.4
77.5°	14.7	13.7	12.9	11.7	11.4	10.7	10.1	9.3	8.6	7.8	7.2
80°	8.6	7.8	7.3	6.5	6.2	5.9	5.4	4.7	4.2	3.9	3.7
82.5°	4.2	3.6	3.4	2.9	2.8	2.6	2.3	2.1	1.8	1.8	1.8
85°	1.5	1.1	1.1	1.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8
87.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2
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°	423.4	423.4	423.4	423.4	423.4	423.4	423.4	423.4	423.4	423.4	423.4
2.5°	421.8	421.6	421.5	421.3	421.3	421.2	421.2	421.0	421.0	420.8	420.8
5°	418.9	418.4	418.1	417.7	417.7	417.2	416.9	416.6	416.4	416.4	416.1
7.5°	414.8	414.2	413.5	413.0	412.9	412.0	411.4	411.4	410.7	410.4	410.1
10°	409.4	408.3	407.3	406.8	406.2	405.7	404.9	404.4	403.9	403.1	402.9
12.5°	402.1	401.3	399.8	399.2	398.8	397.9	396.6	395.9	395.8	395.1	394.6
15°	393.8	392.0	390.7	389.9	389.9	388.3	387.6	386.6	386.0	385.5	385.3
17.5°	383.0	381.3	380.0	378.8	378.5	377.2	376.2	375.9	375.1	375.4	374.6
20°	369.2	367.7	366.8	365.3	365.3	364.5	364.2	363.3	363.0	362.7	363.0
22.5°	354.4	352.6	351.0	350.8	350.8	349.7	349.5	349.3	348.7	349.2	349.0
25°	337.0	335.7	334.7	334.5	334.5	333.9	333.2	333.5	334.0	333.9	334.4
27.5°	318.9	317.6	317.3	317.1	316.8	316.6	316.9	316.9	317.4	318.1	318.7
30°	299.3	299.0	298.5	298.4	298.0	298.8	299.2	299.7	299.5	300.5	301.1
32.5°	279.8	279.1	279.0	279.3	279.8	279.6	280.6	280.9	281.3	282.4	282.9
35°	260.1	259.9	259.6	259.6	259.8	261.1	261.1	262.2	262.9	263.2	264.5
37.5°	238.9	239.6	239.9	240.4	240.5	241.0	241.4	242.5	243.2	243.8	244.5
40°	219.5	219.2	220.7	219.7	220.0	221.5	222.1	222.0	223.0	223.9	224.6
42.5°	198.9	199.3	199.7	200.0	200.8	201.0	201.8	202.9	203.3	204.4	204.7
45°	178.8	179.0	179.6	180.3	180.8	182.1	182.4	182.9	183.9	183.9	184.4
47.5°	159.9	160.6	160.6	161.6	162.4	162.2	163.3	163.7	163.5	164.3	164.7
50°	141.9	142.8	142.7	143.3	143.6	143.8	144.8	145.1	144.5	145.3	145.4
52.5°	124.6	125.1	125.7	125.9	125.6	126.4	126.1	126.7	126.5	127.2	126.5
55°	108.8	108.6	108.6	109.0	108.6	109.0	109.3	108.6	108.1	108.8	108.6
57.5°	93.0	93.0	92.7	93.2	92.7	92.2	92.0	91.5	91.0	91.0	90.9
60°	78.2	77.8	77.2	77.0	77.0	76.2	75.9	75.2	75.2	74.6	73.9
62.5°	64.3	63.5	63.0	63.0	62.7	61.9	60.4	59.4	59.1	58.1	58.0
65°	51.3	50.5	50.0	49.0	48.2	47.9	46.4	45.3	44.8	43.8	44.0
67.5°	39.4	38.1	36.6	36.0	35.5	34.4	33.9	33.1	32.6	32.6	32.6
70°	28.3	27.2	25.7	25.2	24.9	23.9	23.5	23.3	23.8	23.6	23.8
72.5°	19.1	17.9	17.3	16.9	16.6	16.1	16.4	16.6	16.3	16.4	16.6
75°	11.6	11.2	10.7	10.6	10.6	10.7	10.6	10.6	10.7	10.7	10.9
77.5°	6.7	6.4	6.4	6.2	6.5	6.4	6.4	6.4	6.5	6.5	6.5
80°	3.6	3.6	3.6	3.6	3.7	3.6	3.7	3.7	3.7	3.7	3.7
82.5°	1.8	1.8	1.8	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.8
85°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
87.5°	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2
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°	423.4	423.4	423.4	423.4	423.4	423.4	423.4	423.4
2.5°	420.5	420.5	420.5	420.2	420.3	420.3	420.2	420.2
5°	415.9	415.8	415.5	415.5	415.1	415.5	415.3	415.5
7.5°	409.8	409.8	409.3	409.3	409.1	408.9	408.8	408.9
10°	402.4	402.4	402.1	401.9	402.1	401.5	401.5	401.3
12.5°	394.3	394.0	393.6	393.8	393.6	393.1	393.0	393.1
15°	384.8	384.4	384.5	384.0	384.0	383.9	384.2	384.2
17.5°	374.4	374.1	373.8	373.9	373.6	373.8	373.6	373.4
20°	362.9	362.7	362.7	362.0	362.2	362.0	362.2	362.7
22.5°	349.5	349.3	349.5	349.0	349.3	349.3	349.8	349.8
25°	334.8	334.7	335.0	335.2	335.3	335.8	335.3	335.5
27.5°	318.6	319.0	319.5	319.7	320.3	319.9	319.5	320.0
30°	302.1	302.1	301.9	302.6	303.1	303.6	302.8	302.8
32.5°	283.2	284.0	284.0	284.2	284.7	284.7	284.7	285.3
35°	265.1	265.6	265.8	265.1	265.5	265.3	266.4	266.4
37.5°	244.9	244.9	245.1	246.2	246.2	245.8	246.1	246.1
40°	225.7	225.9	225.2	225.6	226.4	226.1	226.4	226.7
42.5°	204.7	205.9	205.2	205.5	205.4	205.5	205.7	205.7
45°	184.7	185.0	185.0	185.2	185.5	185.8	184.8	184.7
47.5°	165.1	165.3	165.8	165.0	166.0	165.0	166.0	164.8
50°	145.4	146.1	145.6	145.9	145.4	145.4	145.3	145.1
52.5°	126.7	126.5	126.5	126.4	126.4	126.7	126.4	126.9
55°	108.0	108.1	107.8	107.7	107.5	108.0	107.5	107.2
57.5°	90.2	90.6	89.9	90.2	89.1	89.6	89.7	89.9
60°	73.8	73.3	73.3	72.6	72.6	73.1	72.5	72.5
62.5°	57.2	57.5	57.0	57.7	57.7	58.3	58.0	58.3
65°	43.8	44.0	44.1	44.1	44.1	45.1	44.8	44.3
67.5°	33.1	33.2	33.4	33.2	33.7	33.4	33.4	33.5
70°	23.9	24.1	24.3	24.3	24.1	24.3	24.3	24.3
72.5°	16.6	16.8	16.6	16.8	16.9	16.8	16.8	16.9
75°	10.9	10.9	10.7	10.7	10.7	10.7	10.9	10.7
77.5°	6.4	6.5	6.4	6.5	6.5	6.5	6.5	6.5
80°	3.7	3.7	3.7	3.6	3.7	3.7	3.7	3.6
82.5°	2.0	2.0	1.8	1.8	2.0	2.0	2.0	2.0
85°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
87.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	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)