

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: P856872

Luminaire Tested: **LX4C10D010 EX4C109030 4LBLWW***

Issue Date: 2/9/2022



Test Information

Test Method: LM-79-08
Report Number: P856872
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: LX4C10D010 EX4C109030 4LBLWW*
Description: 4 INCH 1000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LRLWW TRIM WITH * FINISH, DIM TO WARM
Light Source: -
Ballast/Driver: -

Summary

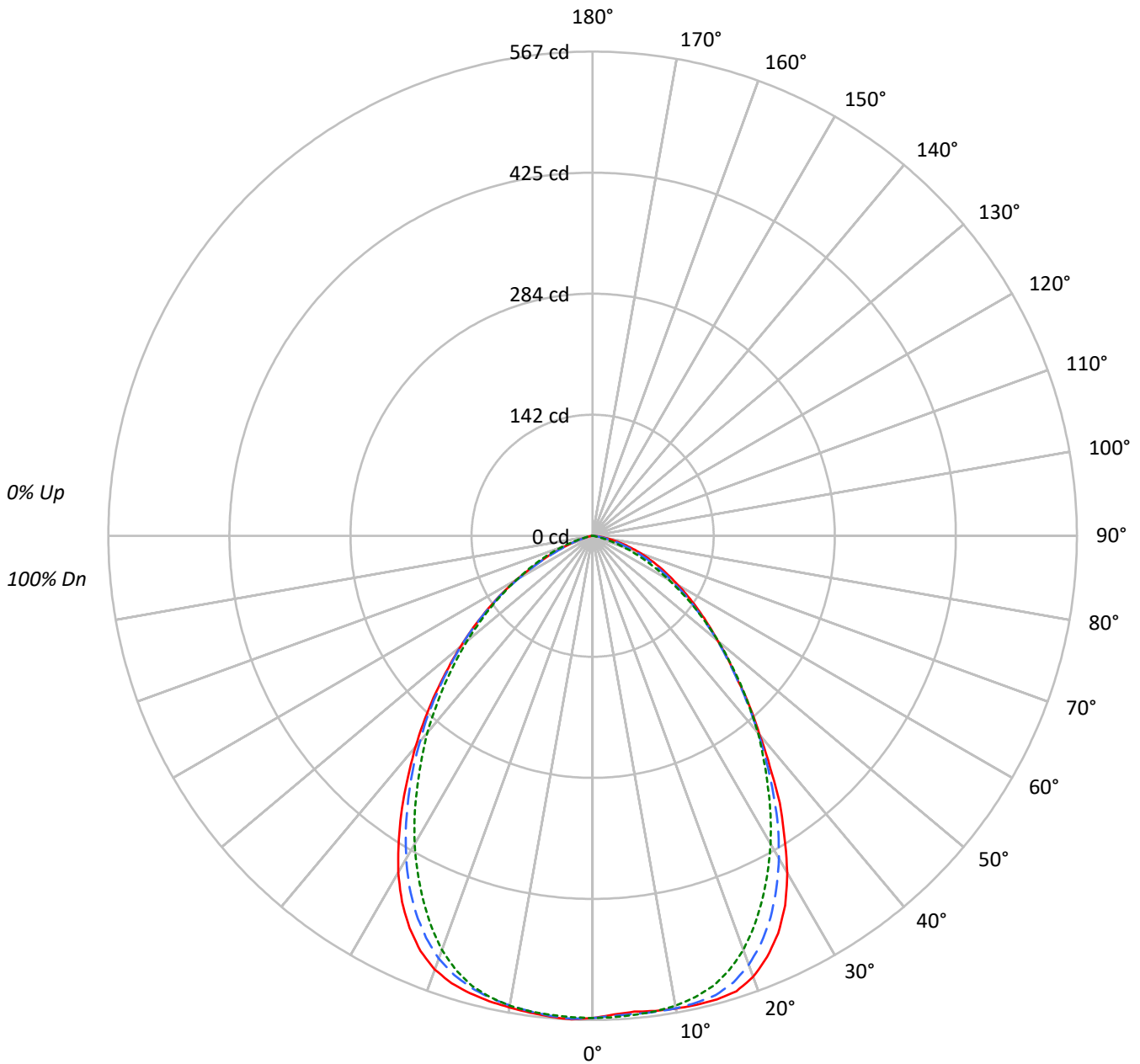
Lumens per Lamp: N/A
Luminaire Lumens: 1082.7 lumens
Efficiency: N/A
Efficacy: 63.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.12 / 1.18
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 17
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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CATALOG NUMBER: LX4C10D010 EX4C109030 4LBLWW*

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	109	105	102	99	101	99	96	97	95	93	94	92	91	89																			
2	103	96	91	86	101	95	89	85	91	87	83	88	84	81	85	82	80	78																			
3	95	87	80	74	93	85	79	74	82	77	72	80	75	71	77	73	70	68																			
4	88	78	71	65	86	77	70	65	75	69	64	72	67	63	70	66	62	60																			
5	82	71	63	57	80	70	63	57	68	61	57	66	60	56	64	59	55	54																			
6	76	65	57	51	75	64	56	51	62	56	51	61	55	50	59	54	50	48																			
7	71	59	51	46	70	59	51	46	57	50	46	56	50	45	54	49	45	43																			
8	67	55	47	42	65	54	47	42	53	46	41	52	46	41	50	45	41	39																			
9	63	51	43	38	61	50	43	38	49	42	38	48	42	38	47	41	37	36																			
10	59	47	40	35	58	46	39	35	45	39	35	45	39	35	44	38	34	33																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	69375	69375	69375
5°	68987	69455	69727
10°	70121	69710	69972
15°	71492	69406	70551
20°	71867	67461	70664
25°	69648	63697	68699
30°	64659	59113	64546
35°	57261	53617	58326
40°	48802	48305	51721
45°	41941	42410	45051
50°	36582	36696	38627
55°	32321	30972	32000
60°	28355	25283	25185
65°	25087	19622	17471
70°	21372	13470	10381
75°	17278	7262	4747
80°	11815	1839	1273
85°	3665	564	564



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.7	5.0
10°-20°	155.4	14.4
20°-30°	224.5	20.7
30°-40°	232.1	21.4
40°-50°	191.8	17.7
50°-60°	132.3	12.2
60°-70°	69.3	6.4
70°-80°	21.8	2.0
80°-90°	1.9	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°	433.5	40.0
0°-40°	665.6	61.5
0°-60°	989.7	91.4
0°-90°	1082.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1082.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	565	565	565	565	565	
5°	559	562	563	564	565	54
15°	562	557	546	548	555	159
25°	514	493	470	489	507	235
35°	382	369	358	376	389	237
45°	241	240	244	255	259	188
55°	151	146	145	149	149	136
65°	86	78	68	56	60	86
75°	36	29	15	10	10	39
85°	3	1	0	0	0	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°	564.7	564.7	564.7	564.7	564.7	564.7	564.7	564.7	564.7	564.7	564.7
2.5°	561.2	561.3	561.3	561.7	561.7	561.7	562.0	562.0	562.1	562.4	562.7
5°	559.4	559.4	559.8	560.1	560.5	560.7	561.2	561.3	561.7	562.0	562.1
7.5°	561.2	561.2	561.3	561.6	561.6	561.7	561.7	562.0	562.1	562.4	562.4
10°	562.1	562.1	562.1	562.1	562.4	562.4	562.4	562.1	562.1	562.1	562.0
12.5°	562.7	562.7	562.4	562.1	562.4	562.1	562.1	561.6	561.2	560.7	560.1
15°	562.1	562.1	562.0	561.7	561.6	561.2	560.9	559.8	559.0	557.7	556.9
17.5°	559.4	559.0	558.6	558.2	557.3	556.7	556.2	554.3	552.8	550.8	548.4
20°	549.7	549.3	548.6	547.6	546.5	545.7	544.3	541.6	540.1	536.9	534.6
22.5°	533.8	533.4	533.5	531.6	529.5	528.3	527.4	525.0	522.6	518.5	516.0
25°	513.8	512.6	512.6	509.6	508.5	507.7	506.7	503.8	500.0	496.4	493.0
27.5°	488.0	486.3	485.5	485.1	482.5	480.6	479.1	477.0	473.7	470.6	465.9
30°	455.8	455.5	454.4	452.5	450.6	449.8	448.1	444.6	441.6	439.2	436.2
32.5°	417.8	417.6	417.6	417.6	416.3	416.1	413.5	411.6	409.3	405.7	403.8
35°	381.8	381.5	381.8	378.5	377.7	377.1	376.8	375.6	372.3	370.7	369.0
37.5°	341.0	341.7	341.3	340.3	341.4	339.5	341.0	338.3	337.0	336.6	334.7
40°	304.3	306.0	304.3	304.6	305.6	303.6	303.6	303.2	302.4	302.0	301.6
42.5°	273.0	270.8	272.0	271.1	272.0	271.5	270.4	271.1	271.2	270.4	270.1
45°	241.4	241.8	242.2	241.5	241.5	241.0	242.6	241.5	241.5	241.8	240.3
47.5°	215.7	215.1	215.5	215.1	215.2	214.8	215.2	215.5	215.1	215.1	213.7
50°	191.4	191.0	192.5	191.3	191.3	191.0	191.3	190.9	190.2	190.2	190.6
52.5°	170.5	169.7	169.4	170.5	169.0	169.0	169.3	168.8	167.9	167.5	166.5
55°	150.9	150.8	150.9	150.1	149.7	149.7	148.6	148.2	148.0	147.0	146.3
57.5°	132.7	132.2	132.3	132.2	131.2	131.1	130.3	130.3	129.3	128.5	127.4
60°	115.4	115.4	116.0	115.2	114.5	114.1	113.7	113.3	111.8	110.3	108.9
62.5°	99.9	100.0	99.9	99.2	98.8	98.4	98.0	96.7	95.4	94.6	93.2
65°	86.3	86.1	85.5	85.1	84.0	84.0	83.2	82.5	81.0	79.8	78.3
67.5°	72.4	72.0	72.0	72.0	70.6	70.5	69.9	68.7	67.5	65.7	64.5
70°	59.5	60.1	59.4	58.7	58.0	57.9	57.2	56.0	54.5	52.8	51.7
72.5°	47.5	47.9	47.2	47.1	45.8	45.4	45.2	44.1	42.4	41.3	39.7
75°	36.4	36.7	36.3	35.8	35.0	34.8	33.8	32.8	31.9	30.1	28.6
77.5°	26.3	25.9	25.9	25.0	24.2	24.2	24.0	22.7	21.2	20.0	18.6
80°	16.7	16.6	15.9	15.5	14.8	14.6	14.4	13.4	12.3	11.5	10.7
82.5°	8.5	8.2	8.1	7.8	7.4	7.0	7.2	6.3	5.9	5.1	4.5
85°	2.6	2.7	2.7	2.6	2.3	2.3	2.3	2.2	1.8	1.5	1.2
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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	564.7	564.7	564.7	564.7	564.7	564.7	564.7	564.7	564.7	564.7	564.7
2.5°	562.8	563.1	563.2	563.5	563.5	563.6	563.9	564.2	564.3	564.3	564.6
5°	562.4	562.8	562.8	563.1	563.1	563.1	563.2	563.2	563.2	563.2	563.5
7.5°	562.7	562.7	562.7	562.4	562.4	562.1	562.1	562.1	561.7	561.7	561.7
10°	561.6	561.3	561.2	560.7	560.5	560.2	559.8	559.4	559.0	558.8	558.4
12.5°	559.4	558.6	557.7	556.9	556.5	556.2	555.4	554.7	554.2	553.5	553.1
15°	555.3	553.9	552.4	550.8	550.3	549.9	548.4	547.2	546.3	545.7	544.6
17.5°	546.8	544.2	542.4	539.9	538.9	538.4	536.1	534.9	533.4	533.0	532.0
20°	531.6	529.3	526.1	523.8	522.6	521.2	519.3	517.6	516.0	516.0	514.9
22.5°	512.7	509.8	505.8	502.9	502.6	500.0	498.4	496.4	495.9	494.5	494.5
25°	489.0	486.5	482.1	479.5	478.2	477.6	474.8	472.2	471.0	469.9	470.7
27.5°	462.8	458.9	455.5	452.4	451.3	450.0	447.5	446.4	444.0	443.9	443.6
30°	432.7	428.8	425.4	423.9	421.7	420.8	418.8	417.6	416.7	416.7	416.3
32.5°	401.1	397.6	396.0	392.7	391.6	390.2	388.9	387.7	388.1	387.7	387.9
35°	366.9	366.0	362.9	361.0	361.0	360.7	358.6	357.8	357.3	357.5	358.6
37.5°	334.4	331.8	329.8	328.5	329.5	328.3	328.0	328.0	329.4	328.5	330.2
40°	299.8	299.7	298.8	299.2	299.4	297.9	298.4	298.6	299.4	301.2	301.3
42.5°	269.7	269.6	269.6	269.6	269.1	268.2	269.1	270.5	270.4	271.6	272.7
45°	240.7	240.3	241.1	240.4	241.8	242.2	241.5	241.9	243.3	244.1	245.8
47.5°	214.2	214.2	214.4	214.8	213.6	214.6	215.1	215.9	216.5	216.9	217.8
50°	189.5	189.5	189.1	189.1	189.1	189.8	189.0	189.9	190.2	192.0	192.9
52.5°	166.9	165.8	166.5	166.0	165.2	164.8	165.2	165.4	166.7	167.1	168.3
55°	145.3	145.3	143.5	143.1	143.8	143.5	143.4	143.4	144.0	144.6	145.7
57.5°	126.2	124.9	123.7	123.4	122.8	123.0	123.0	122.8	122.3	122.6	122.8
60°	108.1	107.3	105.4	105.4	105.2	105.0	104.0	103.7	102.6	102.9	102.1
62.5°	91.7	91.1	88.7	87.8	87.8	87.2	86.1	85.9	84.4	84.4	83.6
65°	76.8	75.5	74.0	72.5	72.5	71.7	71.0	69.1	68.0	67.5	66.2
67.5°	63.2	61.3	59.8	58.6	57.6	57.5	56.0	54.7	53.1	52.0	50.1
70°	50.1	48.6	47.1	45.8	45.0	44.1	42.7	40.8	39.4	37.5	36.3
72.5°	37.8	36.4	35.2	33.5	32.4	31.9	30.4	28.6	26.5	25.2	23.5
75°	27.1	25.6	24.0	22.5	21.9	21.2	19.6	18.2	16.7	15.3	13.6
77.5°	17.6	15.9	14.6	13.0	12.7	12.3	10.7	9.3	8.2	7.4	6.3
80°	9.3	8.5	7.4	6.3	5.9	5.3	4.5	3.8	3.2	2.6	2.2
82.5°	4.1	3.4	2.7	2.3	2.2	1.9	1.5	1.2	1.1	1.1	0.8
85°	1.1	0.8	0.8	0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.4
87.5°	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.0	0.3	0.3	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°	564.7	564.7	564.7	564.7	564.7	564.7	564.7	564.7	564.7	564.7	564.7
2.5°	564.7	565.0	565.1	565.1	565.4	565.7	565.7	565.8	566.1	566.2	566.2
5°	563.6	563.6	563.6	563.9	563.9	563.9	563.9	564.3	564.3	564.6	564.7
7.5°	561.6	561.6	561.6	561.6	561.3	561.6	561.3	561.3	561.7	562.0	562.1
10°	558.2	558.0	558.0	557.7	557.7	557.7	558.0	558.2	558.4	558.6	559.2
12.5°	552.8	552.7	552.7	552.4	552.4	552.7	552.8	553.2	554.2	554.6	555.4
15°	544.3	544.2	544.3	544.6	545.0	545.7	546.3	546.9	548.2	549.3	550.3
17.5°	532.0	532.3	532.4	533.0	533.5	534.5	536.1	537.8	539.3	540.9	542.7
20°	515.2	516.0	516.1	517.6	518.1	520.0	521.9	524.5	526.8	528.9	531.2
22.5°	494.8	495.4	496.3	497.9	499.0	501.5	503.8	506.8	509.4	512.2	515.6
25°	471.7	471.8	474.4	474.4	477.0	479.1	481.8	485.1	488.8	492.5	494.8
27.5°	445.4	446.4	448.3	449.1	451.0	454.4	456.8	460.6	464.4	467.6	470.2
30°	417.8	418.6	421.7	422.3	423.8	426.7	429.8	433.5	436.5	440.1	442.4
32.5°	388.7	391.1	393.0	394.5	394.9	399.3	401.1	403.5	406.9	410.5	412.8
35°	360.5	361.5	364.4	365.2	366.4	369.0	372.3	374.5	376.2	378.5	381.2
37.5°	330.6	333.9	334.4	337.0	337.4	339.8	341.4	344.0	346.1	348.2	348.7
40°	302.8	303.9	306.2	306.9	307.3	310.5	312.5	313.2	314.3	316.2	318.7
42.5°	274.6	275.7	278.2	277.6	279.5	280.9	282.0	284.6	285.7	286.3	286.3
45°	246.8	247.3	248.9	249.8	250.8	251.8	253.7	254.9	255.3	257.2	257.8
47.5°	220.3	220.7	222.1	223.6	223.2	224.1	226.3	226.9	227.1	228.4	229.1
50°	194.3	195.3	197.0	196.6	197.9	198.5	200.3	200.9	200.9	201.0	201.3
52.5°	169.8	170.8	171.2	171.6	172.3	173.2	174.2	173.7	174.6	175.4	174.7
55°	145.7	146.3	147.4	147.8	147.8	148.0	147.6	149.4	148.6	148.5	148.6
57.5°	123.7	122.8	122.6	123.7	124.1	123.8	123.3	124.1	124.1	123.7	123.0
60°	102.2	101.5	101.4	101.5	100.7	100.0	100.6	100.0	99.1	98.6	98.8
62.5°	82.8	82.1	80.3	80.3	79.9	79.8	78.0	78.3	77.4	76.1	76.5
65°	64.7	63.0	62.1	62.0	60.5	59.1	58.7	57.2	56.0	55.8	56.0
67.5°	48.6	46.7	45.2	44.6	43.7	42.7	41.2	39.8	40.2	40.1	40.9
70°	33.8	32.4	30.9	29.8	30.4	29.0	28.2	28.2	28.4	28.6	29.0
72.5°	22.5	20.8	20.1	19.6	19.0	18.2	18.6	18.6	18.5	18.6	18.2
75°	12.7	11.9	11.2	11.1	10.7	10.7	10.7	10.7	10.4	10.1	10.1
77.5°	5.7	5.3	5.1	4.9	4.9	4.9	4.7	4.5	4.5	4.5	4.2
80°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
82.5°	0.8	0.8	1.1	1.1	1.1	0.8	1.1	1.1	0.8	0.8	1.1
85°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
87.5°	0.3	0.3	0.3	0.0	0.3	0.3	0.3	0.3	0.0	0.3	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: P856872

CATALOG NUMBER: LX4C10D010 EX4C109030 4LBLWW*

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	564.7	564.7	564.7	564.7	564.7	564.7	564.7	564.7
2.5°	566.5	566.6	566.6	566.6	566.9	566.9	566.9	566.9
5°	565.0	565.1	565.1	565.1	565.4	565.4	565.4	565.4
7.5°	562.4	562.7	562.7	562.8	562.8	563.1	563.1	563.2
10°	559.4	559.8	560.1	560.2	560.5	560.7	560.7	560.9
12.5°	556.2	556.7	556.9	557.3	557.7	558.0	558.2	558.4
15°	551.6	552.4	552.8	553.1	553.9	554.3	554.6	554.7
17.5°	544.2	545.8	546.5	546.9	547.8	548.6	549.3	549.4
20°	533.5	535.4	536.4	537.4	538.7	539.7	540.1	540.5
22.5°	518.7	520.8	522.0	523.4	524.5	525.6	527.2	526.5
25°	497.5	501.1	502.6	503.3	505.6	506.8	507.7	506.8
27.5°	473.7	475.9	477.1	478.6	480.3	481.5	482.1	483.3
30°	445.1	448.7	448.5	450.0	452.1	453.5	453.9	455.0
32.5°	415.4	417.2	418.4	418.2	419.0	421.3	420.5	422.4
35°	383.8	384.1	386.2	386.0	387.7	387.7	387.7	388.9
37.5°	350.2	352.6	351.5	354.1	353.3	354.0	354.0	354.4
40°	319.4	320.2	320.2	321.0	321.7	321.0	321.4	322.5
42.5°	287.6	288.4	288.6	288.2	288.9	290.8	289.3	290.5
45°	257.8	258.5	259.3	258.7	259.7	259.2	259.7	259.3
47.5°	229.9	229.6	229.5	231.1	229.6	229.9	230.7	229.2
50°	201.3	202.5	201.7	202.4	202.8	202.8	202.1	202.1
52.5°	175.8	175.6	175.0	175.6	175.2	175.4	175.8	175.4
55°	149.4	150.4	150.0	149.7	150.0	150.0	151.2	149.4
57.5°	123.7	123.3	123.8	125.3	123.8	124.9	125.6	125.8
60°	99.1	99.1	100.3	99.6	101.0	102.1	102.9	102.5
62.5°	75.5	76.5	77.0	77.2	78.4	79.4	79.4	79.1
65°	56.0	57.5	57.5	58.3	58.7	58.7	59.1	60.1
67.5°	41.3	41.3	41.6	42.0	41.7	41.7	42.3	42.4
70°	28.9	28.4	29.0	28.9	28.9	28.6	28.9	28.9
72.5°	18.2	18.2	18.5	18.2	17.8	18.1	18.1	18.5
75°	9.7	10.1	9.7	9.7	10.0	9.6	9.7	10.0
77.5°	4.1	4.1	4.1	4.1	4.1	3.8	3.8	3.8
80°	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8
82.5°	0.8	1.1	0.8	1.1	0.8	0.8	0.8	0.8
85°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
87.5°	0.0	0.3	0.0	0.3	0.0	0.0	0.0	0.3
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)