

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: P859811

Luminaire Tested: **LX4C08D010 EX4C089030 4LBSWNH**

Issue Date: 2/18/2022



Test Information

Test Method: LM-79-08
Report Number: P859811
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P251634)
Test Lab: INNOVATION CENTER
Issue Date: 2/18/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LX4C08D010 EX4C089030 4LBSWNH
Description: 4 INCH 800 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS AND 4LCSW TRIM WITH H FINISH, DIM TO WARM
Light Source: -
Ballast/Driver: -

Summary

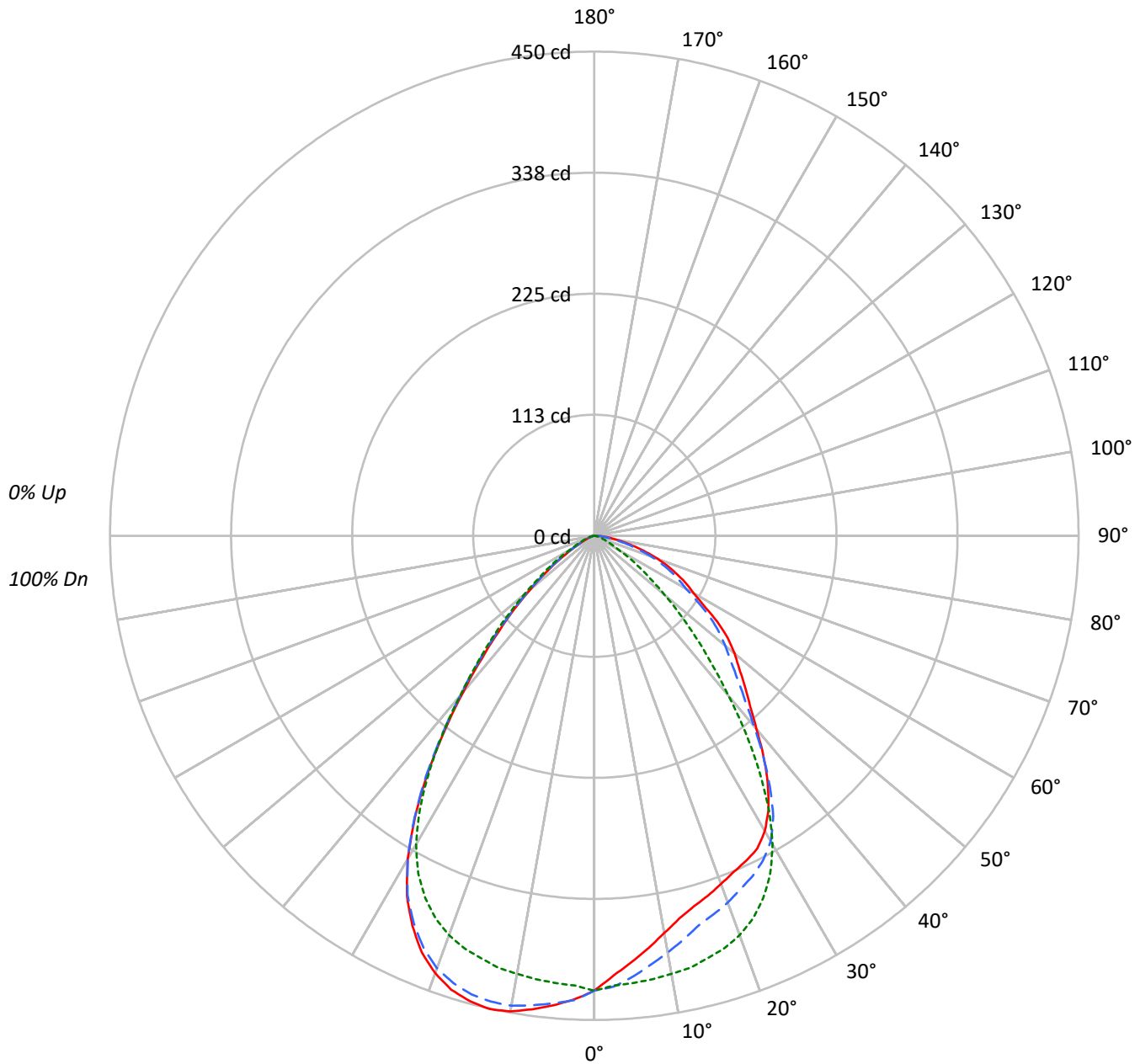
Lumens per Lamp: N/A
Luminaire Lumens: 741.0 lumens
Efficiency: N/A
Efficacy: 69.3 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.17 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 10.7
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: P859811

CATALOG NUMBER: LX4C08D010 EX4C089030 4LBSWNH

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	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	111	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89		
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79		
3	96	88	81	76	94	86	80	75	83	78	74	81	76	73	78	75	72	70		
4	90	80	72	67	88	78	72	66	76	70	66	74	69	65	72	68	64	62		
5	83	73	65	60	82	72	65	59	70	63	59	68	62	58	66	61	58	56		
6	78	67	59	53	76	66	59	53	64	58	53	62	57	52	61	56	52	50		
7	73	61	54	48	71	61	53	48	59	53	48	58	52	48	56	51	47	46		
8	68	57	49	44	67	56	49	44	55	48	44	54	48	43	52	47	43	42		
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	38		
10	61	49	42	37	59	48	42	37	47	41	37	47	41	37	46	40	37	35		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	51942	51942	51942
5°	49045	51450	54015
10°	46756	51571	56000
15°	45380	51689	56942
20°	45013	51628	56544
25°	45194	50358	54208
30°	44969	46984	49154
35°	42158	40119	40524
40°	37576	31096	30407
45°	34349	23194	21770
50°	32491	16246	14698
55°	29879	10966	9210
60°	26094	6413	5086
65°	24709	4128	2849
70°	22522	2945	1760
75°	18607	2089	1329
80°	14645	1132	707
85°	13109	846	0



TEST NUMBER: P859811

CATALOG NUMBER: LX4C08D010 EX4C089030 4LBSWNH

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.9	5.4
10°-20°	114.6	15.5
20°-30°	169.9	22.9
30°-40°	170.1	23.0
40°-50°	118.9	16.0
50°-60°	70.7	9.5
60°-70°	36.9	5.0
70°-80°	16.4	2.2
80°-90°	3.6	0.5
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°	324.4	43.8
0°-40°	494.5	66.7
0°-60°	684.1	92.3
0°-90°	741.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	741.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	423	423	423	423	423	
5°	398	411	417	436	438	37
15°	357	375	406	441	448	101
25°	333	349	372	397	400	154
35°	281	284	268	272	270	174
45°	198	188	134	129	125	154
55°	140	131	51	45	43	124
65°	85	78	14	10	10	84
75°	39	34	4	3	3	42
85°	9	7	1	1	0	10
90°	0	0	0	0	0	



TEST NUMBER: P859811

CATALOG NUMBER: LX4C08D010 EX4C089030 4LBSWNH

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8
2.5°	409.1	414.0	409.1	410.8	417.2	411.3	414.6	414.6	413.0	416.8	419.4
5°	397.7	402.6	397.7	399.9	406.9	400.9	404.8	403.7	404.2	407.5	411.3
7.5°	386.3	390.1	385.7	388.5	394.9	390.1	393.3	393.3	393.9	398.7	402.0
10°	374.8	378.1	374.8	377.0	384.1	379.7	381.9	382.4	384.1	388.5	393.3
12.5°	364.4	367.2	363.9	367.2	373.2	368.8	371.5	372.0	373.7	378.6	384.1
15°	356.8	359.6	356.2	359.0	364.4	361.2	363.4	364.4	365.6	369.8	374.8
17.5°	350.8	353.0	350.3	353.5	357.9	354.1	357.4	357.4	359.0	363.4	368.8
20°	344.3	346.5	344.3	347.0	351.9	348.6	351.4	351.4	353.0	357.9	362.8
22.5°	338.3	339.3	338.3	340.5	345.3	342.7	344.3	344.8	346.5	350.8	355.2
25°	333.4	335.5	334.5	336.7	339.9	337.2	338.9	339.3	341.0	344.8	348.6
27.5°	327.9	329.0	327.9	330.7	333.4	331.2	332.9	332.3	333.4	336.7	339.9
30°	317.0	318.2	318.2	319.8	322.0	320.9	322.5	320.9	322.0	324.7	327.9
32.5°	301.2	301.8	302.3	304.0	305.6	304.0	305.0	305.0	305.0	307.2	309.4
35°	281.1	282.2	281.7	282.7	284.3	283.9	283.9	283.3	282.2	283.3	284.3
37.5°	258.2	256.6	256.6	258.2	259.3	257.2	258.2	257.2	257.2	257.6	257.6
40°	234.3	232.7	234.3	234.7	235.3	234.3	233.7	232.7	230.9	231.5	230.5
42.5°	214.1	213.0	213.6	213.6	214.1	213.0	213.6	211.4	209.8	208.6	207.0
45°	197.7	196.1	197.7	196.6	196.6	196.1	195.6	194.5	192.3	190.7	187.9
47.5°	182.5	182.5	183.1	183.1	183.1	181.9	181.9	179.7	177.6	175.4	171.6
50°	170.0	168.9	171.1	171.1	169.4	168.9	169.4	166.7	165.1	162.4	158.6
52.5°	156.4	156.4	156.8	156.8	156.4	155.2	155.8	153.6	152.0	149.2	145.4
55°	139.5	138.4	140.0	140.0	139.5	138.9	139.5	137.8	136.2	134.0	130.7
57.5°	120.4	119.8	120.9	121.5	120.4	120.4	120.9	119.3	118.8	116.6	113.3
60°	106.2	105.6	106.8	107.4	106.2	106.2	106.2	104.0	103.0	100.8	98.6
62.5°	96.4	95.9	97.0	96.4	95.9	95.3	95.9	93.7	92.6	90.4	88.3
65°	85.0	85.5	86.1	86.1	85.5	85.0	85.0	83.9	82.8	80.7	77.9
67.5°	74.1	74.1	74.7	75.1	74.7	74.7	74.7	73.0	71.9	70.3	67.0
70°	62.7	62.1	63.7	63.7	62.7	63.2	62.7	62.1	61.0	58.8	56.1
72.5°	50.6	50.6	51.2	51.2	50.6	50.6	50.6	50.2	48.4	47.4	44.6
75°	39.2	39.2	39.8	40.3	39.2	39.2	39.8	38.7	37.6	36.0	34.3
77.5°	29.4	28.9	29.4	29.4	28.9	28.9	28.9	28.3	27.7	26.1	24.5
80°	20.7	20.1	20.7	20.7	20.7	20.1	20.1	19.6	19.6	18.5	16.9
82.5°	14.2	13.6	14.2	14.2	14.2	13.6	13.6	13.6	13.1	12.5	11.4
85°	9.3	8.7	8.7	9.3	8.7	8.7	8.7	8.7	8.2	7.6	7.1
87.5°	4.4	4.4	4.4	4.4	4.4	4.4	4.4	3.8	3.8	3.8	3.2
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: P859811

CATALOG NUMBER: LX4C08D010 EX4C089030 4LBSWNH

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8
2.5°	417.2	416.2	419.4	418.4	419.0	416.2	420.6	418.4	421.0	418.4	423.8
5°	410.2	409.1	414.0	413.4	414.0	411.8	416.8	416.2	419.4	417.2	423.2
7.5°	402.6	401.5	406.9	407.5	408.6	406.4	413.0	413.0	416.2	415.6	422.2
10°	393.9	394.3	399.9	400.9	403.1	402.0	408.0	409.6	414.0	413.4	421.6
12.5°	385.7	385.7	392.7	394.9	396.5	396.1	403.1	405.3	410.2	411.3	419.0
15°	377.5	378.1	384.6	387.9	390.1	389.5	397.1	399.9	405.8	406.4	415.6
17.5°	371.0	370.4	377.5	380.2	383.5	382.9	391.1	394.3	400.4	402.0	410.8
20°	365.6	365.0	371.5	374.8	377.0	376.4	384.6	388.5	393.9	394.9	403.7
22.5°	359.0	357.9	364.4	367.2	369.4	368.8	375.9	378.6	384.1	385.1	393.3
25°	351.4	350.3	356.2	357.9	359.6	358.4	364.4	366.0	370.4	371.5	379.7
27.5°	342.7	339.9	344.8	344.8	345.9	344.3	348.6	350.3	354.1	354.1	361.8
30°	329.0	325.2	327.9	327.4	327.9	325.8	328.5	329.0	331.7	331.2	336.7
32.5°	310.0	304.5	306.2	304.5	302.9	299.6	302.9	301.8	304.0	301.8	306.7
35°	283.9	278.3	277.8	275.6	274.0	271.3	271.3	268.6	269.1	267.5	270.8
37.5°	255.5	248.4	247.3	243.0	240.3	236.9	236.9	234.7	232.1	230.9	233.7
40°	227.7	220.1	217.4	210.2	207.6	204.2	202.1	199.4	198.3	193.9	196.1
42.5°	203.8	195.6	189.6	181.9	179.3	174.3	171.1	167.8	166.2	161.2	163.4
45°	183.5	173.8	167.2	157.4	153.6	148.2	143.3	139.5	135.7	133.5	132.3
47.5°	166.7	156.4	147.6	136.7	130.7	125.9	119.3	115.5	110.6	107.8	106.2
50°	152.6	141.1	131.3	118.8	112.8	107.4	99.7	93.7	89.3	85.0	83.9
52.5°	140.0	128.1	117.1	103.0	95.9	89.3	81.1	74.7	70.8	65.9	65.4
55°	125.3	115.0	103.0	88.3	81.1	74.7	65.9	59.4	54.4	51.2	50.2
57.5°	109.5	99.7	88.3	73.5	66.5	59.4	51.2	45.2	40.8	38.1	37.6
60°	94.8	85.5	74.7	59.9	52.8	46.8	38.1	32.1	28.3	26.1	25.1
62.5°	83.9	75.1	64.8	51.2	44.6	38.7	30.5	25.1	21.8	19.6	18.5
65°	73.5	64.8	55.6	43.0	37.6	32.1	24.5	19.6	16.3	14.2	13.1
67.5°	62.7	55.0	46.3	36.0	30.5	26.1	19.6	15.2	12.5	10.9	9.8
70°	51.8	44.6	37.6	28.9	25.1	20.7	15.2	12.0	9.3	8.2	7.1
72.5°	40.8	35.4	29.4	22.3	19.1	16.3	12.0	8.7	7.1	6.0	4.9
75°	30.5	26.7	21.8	16.9	14.2	12.0	8.7	6.6	5.4	4.4	3.8
77.5°	21.8	18.5	15.2	11.4	10.4	8.7	6.0	4.9	3.8	2.8	2.2
80°	14.7	13.1	10.4	8.2	6.6	6.0	4.4	3.2	2.2	1.6	1.6
82.5°	9.8	8.2	6.6	4.9	4.4	3.8	2.8	2.2	1.6	1.0	1.0
85°	6.0	4.9	3.8	2.8	2.8	2.2	1.6	1.0	0.6	0.6	0.6
87.5°	2.8	2.2	1.6	1.0	1.0	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



TEST NUMBER: P859811

CATALOG NUMBER: LX4C08D010 EX4C089030 4LBSWNH

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8
2.5°	428.2	424.9	422.8	425.4	426.6	424.9	426.6	429.3	432.0	432.5	424.9
5°	428.7	425.4	424.4	427.6	428.2	427.6	429.3	433.1	436.3	437.5	429.8
7.5°	428.7	426.6	426.0	429.8	430.4	429.8	432.5	436.9	440.1	442.3	434.7
10°	427.6	426.6	427.1	430.4	431.4	431.4	435.3	440.1	443.5	445.6	438.0
12.5°	426.0	426.0	426.0	429.8	430.9	431.4	434.7	441.3	443.5	446.7	439.1
15°	423.2	423.2	423.2	427.1	428.7	428.7	432.5	438.5	441.3	444.5	436.9
17.5°	418.4	418.4	419.0	422.2	423.8	423.8	427.6	434.2	435.8	439.7	432.0
20°	411.3	411.3	411.8	415.2	416.8	415.6	420.6	426.0	427.6	430.9	423.2
22.5°	400.9	400.9	400.9	404.2	405.3	404.8	409.6	414.6	414.6	419.0	410.8
25°	385.7	386.7	385.7	388.9	390.1	389.5	393.9	398.2	397.1	402.0	393.9
27.5°	367.2	366.6	366.6	369.4	369.4	368.8	372.0	377.0	375.9	379.1	371.5
30°	341.5	343.1	340.5	344.3	342.7	341.5	343.7	348.1	346.5	349.2	343.1
32.5°	312.2	310.0	310.0	310.0	311.0	308.4	310.6	312.6	311.0	313.8	307.2
35°	273.5	274.0	272.4	272.9	273.5	270.2	272.4	274.6	272.4	274.0	268.0
37.5°	234.7	235.3	231.5	233.7	231.5	230.5	232.7	233.7	231.5	233.1	226.6
40°	196.1	195.0	194.5	194.5	195.0	192.3	193.9	195.6	193.9	195.0	189.0
42.5°	162.4	161.8	160.7	161.2	159.6	159.0	159.6	161.2	159.6	160.7	156.4
45°	132.9	131.9	130.2	130.7	130.7	128.1	129.7	130.7	129.1	129.7	125.9
47.5°	105.6	104.0	104.0	103.6	103.6	102.4	104.0	103.6	101.8	103.0	99.2
50°	82.3	81.1	81.1	81.1	81.1	79.5	80.1	81.1	79.5	79.5	77.3
52.5°	64.3	62.7	61.6	61.6	61.6	61.0	61.0	61.6	59.9	59.9	59.4
55°	48.4	48.0	46.3	46.3	46.3	44.6	45.2	45.2	44.6	44.6	43.0
57.5°	36.0	34.3	33.2	33.2	32.1	32.1	31.6	32.1	31.1	31.1	29.9
60°	23.9	22.9	22.3	21.8	21.8	21.3	21.8	21.3	21.3	20.7	20.1
62.5°	17.4	16.3	15.2	15.2	15.2	14.7	14.7	14.7	14.7	14.7	14.2
65°	12.5	11.4	11.4	10.9	10.9	10.4	10.4	10.4	10.4	10.4	9.8
67.5°	8.7	8.2	7.6	7.6	7.6	7.6	7.6	7.6	7.1	7.1	7.1
70°	6.6	6.0	5.4	5.4	5.4	5.4	5.4	4.9	5.4	5.4	4.9
72.5°	4.4	4.4	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
75°	3.2	3.2	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
77.5°	2.2	2.2	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
80°	1.6	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
82.5°	1.0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
85°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	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



TEST NUMBER: P859811

CATALOG NUMBER: LX4C08D010 EX4C089030 4LBSWNH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8
2.5°	433.1	432.5	431.4	433.1	428.7	427.1	426.6	431.4
5°	439.1	438.0	438.0	439.7	434.7	433.6	432.5	438.0
7.5°	444.5	443.5	443.5	445.1	440.7	439.7	438.5	443.9
10°	447.7	447.7	447.7	448.9	445.1	443.9	443.5	448.9
12.5°	449.4	449.4	448.9	451.1	446.1	446.1	445.1	450.5
15°	447.3	447.3	447.3	448.9	444.5	443.5	443.5	447.7
17.5°	441.8	441.8	441.3	442.9	438.0	438.0	437.5	442.3
20°	433.6	433.6	432.5	434.7	429.8	428.2	427.6	432.5
22.5°	420.6	420.0	419.4	420.6	416.2	415.2	414.6	419.0
25°	403.7	403.1	402.0	403.1	398.2	396.5	396.5	399.9
27.5°	379.7	379.7	378.1	379.7	374.2	373.7	373.2	377.0
30°	350.3	348.1	347.0	349.2	343.7	343.7	342.7	346.5
32.5°	313.8	311.6	311.0	312.2	307.2	305.6	307.8	310.0
35°	271.8	272.4	270.2	270.2	265.8	266.4	267.0	270.2
37.5°	231.5	230.5	229.9	230.5	227.1	226.1	225.0	228.3
40°	193.9	191.2	190.7	190.7	187.9	187.4	187.9	189.6
42.5°	158.6	158.0	155.8	156.8	154.2	155.2	154.8	154.8
45°	128.1	128.5	126.4	128.1	125.9	124.2	124.2	125.3
47.5°	101.4	101.4	100.8	100.8	99.2	99.7	98.6	100.2
50°	78.5	78.5	77.3	77.9	76.9	76.9	76.3	76.9
52.5°	59.9	59.4	59.4	58.8	57.8	58.3	58.8	57.8
55°	43.6	44.1	43.0	43.6	42.5	43.0	42.5	43.0
57.5°	29.9	30.5	29.4	30.5	29.4	29.9	29.4	29.4
60°	20.7	20.7	20.1	20.7	20.1	20.1	19.6	20.7
62.5°	14.2	14.2	14.2	14.2	14.2	13.6	14.2	14.2
65°	10.4	9.8	9.8	9.8	9.8	9.8	9.8	9.8
67.5°	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1
70°	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
72.5°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
75°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
77.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
80°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
82.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
85°	0.6	0.6	0.6	0.0	0.6	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)