

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: P857292

Luminaire Tested: **LX4C20D010 EX4C209030 4LBLWWH**

Issue Date: 2/14/2022

Test Information

Test Method: LM-79-08
Report Number: P857292
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: LX4C20D010 EX4C209030 4LBLWWH
Description: 4 INCH 2000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LRLWW TRIM WITH H FINISH, DIM TO WARM
Light Source: -
Ballast/Driver: -

Summary

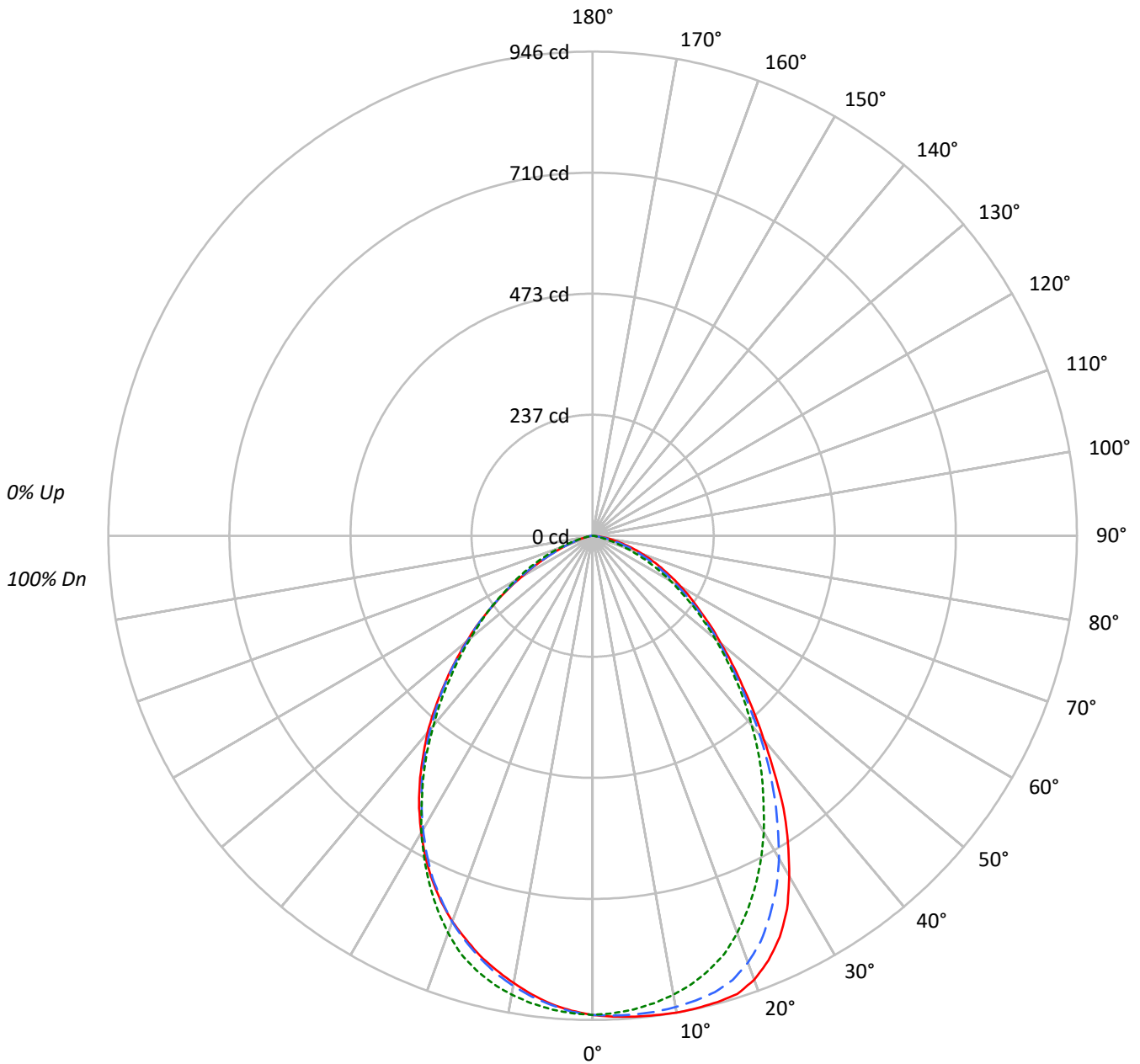
Lumens per Lamp: N/A
Luminaire Lumens: 1764.4 lumens
Efficiency: N/A
Efficacy: 54.1 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.09 / 1.17
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 32.6
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				
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			
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	49	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°	115015	115015	115015
5°	116306	114530	113284
10°	118012	113559	110690
15°	119950	111747	108046
20°	120697	107950	104839
25°	117240	102113	100554
30°	108948	94918	94960
35°	97530	86521	88336
40°	83507	77557	80379
45°	71894	68384	70938
50°	62498	59536	61332
55°	54982	51212	50763
60°	48945	42728	39362
65°	42936	34215	28459
70°	36890	24174	19289
75°	29904	14050	11297
80°	21437	6084	5589
85°	8176	2678	2678



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.2	5.0
10°-20°	249.8	14.2
20°-30°	356.6	20.2
30°-40°	373.1	21.1
40°-50°	312.6	17.7
50°-60°	218.8	12.4
60°-70°	119.1	6.8
70°-80°	41.3	2.3
80°-90°	4.7	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°	694.6	39.4
0°-40°	1067.7	60.5
0°-60°	1599.1	90.6
0°-90°	1764.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1764.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	936	936	936	936	936	
5°	943	939	929	921	919	90
15°	943	923	879	853	850	266
25°	865	819	753	739	742	395
35°	650	618	577	581	589	403
45°	414	404	394	407	408	322
55°	257	248	239	239	237	232
65°	148	135	118	99	98	147
75°	63	51	30	24	24	68
85°	6	3	2	2	2	10
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°	936.2	936.2	936.2	936.2	936.2	936.2	936.2	936.2	936.2	936.2	936.2
2.5°	940.5	939.5	939.8	939.8	939.8	939.5	939.8	939.5	939.5	939.1	938.3
5°	943.1	942.4	942.4	942.4	941.9	941.6	941.6	941.2	940.5	940.2	938.8
7.5°	944.8	944.1	944.1	943.8	943.4	943.1	942.7	941.6	940.5	939.8	938.0
10°	946.0	944.8	944.8	944.1	943.4	943.1	942.4	940.9	939.5	937.6	935.1
12.5°	945.2	944.1	943.8	943.1	941.6	940.9	940.2	938.3	935.9	933.3	930.1
15°	943.1	942.4	941.6	940.5	938.8	937.6	936.9	934.0	930.8	927.2	923.2
17.5°	938.8	937.6	936.2	934.7	932.3	931.1	929.4	925.8	921.0	916.1	909.9
20°	923.2	922.5	921.0	918.6	914.7	913.2	910.6	906.0	899.8	893.8	887.3
22.5°	897.7	896.6	894.5	892.3	888.7	886.1	884.0	877.5	870.7	864.2	858.1
25°	864.9	863.9	861.0	858.1	854.5	850.2	848.0	843.0	836.1	827.8	818.8
27.5°	822.8	819.2	818.1	814.9	809.4	808.1	804.8	798.3	791.8	784.6	777.1
30°	768.0	768.0	765.9	764.4	759.5	757.9	754.3	747.5	743.9	733.8	728.1
32.5°	710.0	709.3	707.6	706.4	703.7	701.1	697.5	693.9	685.9	680.9	673.0
35°	650.3	646.0	646.7	644.5	642.8	639.9	639.5	635.6	628.4	625.5	618.3
37.5°	582.2	580.5	583.0	579.8	577.9	578.3	575.4	572.9	570.0	564.9	563.5
40°	520.7	522.1	521.8	518.9	520.4	518.5	515.6	513.1	511.7	508.4	507.4
42.5°	465.6	463.4	462.7	462.7	463.1	463.1	461.7	459.8	459.8	456.6	453.3
45°	413.8	413.8	413.0	415.2	411.9	411.9	410.9	410.5	409.0	408.3	404.4
47.5°	369.1	368.8	368.4	368.0	367.6	367.6	365.5	363.7	363.3	361.1	359.0
50°	327.0	329.1	328.4	326.5	325.8	326.2	324.8	323.8	323.4	319.7	320.2
52.5°	291.6	291.3	292.0	290.9	289.2	289.5	288.0	286.6	285.1	283.4	282.0
55°	256.7	258.6	257.9	256.7	256.4	255.7	254.6	252.8	252.4	248.5	248.1
57.5°	227.6	227.2	226.5	224.7	224.3	223.3	223.3	221.8	219.7	217.5	215.6
60°	199.2	199.2	198.0	197.7	196.3	195.9	195.6	194.1	191.5	189.8	186.9
62.5°	171.8	172.5	171.8	170.6	169.6	168.2	167.4	166.3	164.1	162.4	159.8
65°	147.7	147.3	146.9	145.5	145.1	143.7	143.3	141.2	139.0	137.6	134.7
67.5°	124.6	123.5	123.5	122.8	122.0	121.0	120.3	118.1	115.5	114.1	111.2
70°	102.7	101.8	101.8	101.8	100.1	99.1	98.7	97.6	94.0	92.6	89.7
72.5°	82.5	82.1	81.8	80.6	79.6	79.6	78.2	76.0	74.1	72.4	70.2
75°	63.0	63.7	63.0	61.6	61.2	60.4	59.4	57.7	55.8	53.7	51.2
77.5°	46.1	45.4	44.7	44.7	44.0	42.5	42.1	40.7	38.5	37.1	34.6
80°	30.3	29.9	29.1	28.4	28.1	27.7	27.4	25.9	23.8	22.7	20.5
82.5°	16.6	16.2	16.2	15.9	14.7	14.7	14.4	13.0	11.8	11.1	10.1
85°	5.8	5.8	5.8	5.5	5.5	5.5	5.0	4.6	4.3	3.9	3.2
87.5°	0.7	0.3	0.7	0.3	0.7	0.3	0.3	0.3	0.3	0.3	0.3
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°	936.2	936.2	936.2	936.2	936.2	936.2	936.2	936.2	936.2	936.2	936.2
2.5°	937.6	936.9	936.6	936.2	935.9	935.5	935.1	934.4	934.0	933.7	933.0
5°	937.6	936.2	935.5	934.4	933.7	933.0	931.9	930.8	929.7	928.7	927.5
7.5°	936.2	934.0	932.6	930.4	929.7	928.7	926.5	925.1	923.2	921.0	918.6
10°	932.6	930.1	927.2	924.3	923.2	921.5	918.6	916.1	913.2	910.3	907.8
12.5°	926.8	922.9	919.3	915.4	913.2	911.4	907.4	903.8	900.2	896.9	892.6
15°	918.3	913.5	908.9	903.4	901.0	898.8	893.0	888.7	882.9	878.6	874.3
17.5°	904.2	896.9	891.2	884.4	880.8	878.2	873.2	866.4	861.0	856.3	851.2
20°	880.1	873.2	865.2	857.7	853.8	850.5	843.3	836.1	830.7	825.7	820.2
22.5°	848.3	839.7	833.9	824.6	821.4	817.3	808.8	802.3	796.1	791.1	786.0
25°	809.8	802.3	794.4	785.7	781.7	777.1	769.9	763.0	759.1	753.3	747.2
27.5°	765.5	759.5	749.7	742.2	738.2	734.5	727.7	721.6	715.8	711.9	706.1
30°	718.7	711.5	702.8	695.0	692.8	688.5	682.3	677.7	671.5	669.1	666.5
32.5°	667.2	659.0	652.5	647.4	643.1	639.5	636.3	628.7	627.7	621.2	620.4
35°	611.1	607.5	601.3	597.1	593.5	590.9	585.5	581.9	577.9	576.9	574.3
37.5°	558.1	553.8	548.1	544.0	541.6	541.3	537.2	535.1	532.2	530.8	527.9
40°	502.6	500.9	495.8	495.1	491.1	490.8	488.6	486.2	483.6	483.6	484.0
42.5°	451.6	449.4	447.2	444.7	442.5	442.5	441.5	440.7	440.0	438.9	440.7
45°	403.7	400.8	399.4	396.8	397.9	395.7	395.0	395.0	393.9	393.6	396.1
47.5°	359.0	355.8	354.3	353.6	353.6	353.9	350.7	351.8	351.5	352.2	353.2
50°	318.3	315.4	313.3	313.3	313.7	312.2	310.8	311.8	310.8	311.5	314.0
52.5°	280.5	277.6	276.5	276.5	274.3	274.0	274.7	273.3	273.6	274.0	275.5
55°	245.6	243.8	242.0	240.1	240.6	239.8	238.4	238.0	238.7	239.1	240.9
57.5°	214.3	211.7	209.3	208.5	207.8	207.8	206.0	205.6	206.4	204.5	204.5
60°	184.3	182.9	179.7	178.6	178.6	176.8	175.4	176.1	174.2	173.9	174.2
62.5°	156.6	155.6	153.4	151.3	150.6	149.8	148.0	147.3	146.5	145.1	142.9
65°	132.5	130.0	127.5	126.0	124.9	123.2	122.0	120.6	118.4	117.7	115.5
67.5°	108.3	105.9	103.4	102.3	101.2	100.1	98.3	96.5	94.0	91.1	88.6
70°	87.1	83.9	82.5	79.6	78.9	77.4	74.9	73.1	70.5	67.3	64.8
72.5°	66.6	64.5	62.3	59.7	58.0	56.8	54.8	51.9	49.0	47.2	44.7
75°	47.9	46.9	44.0	41.1	40.4	38.9	36.4	34.6	32.4	29.6	27.4
77.5°	32.4	30.3	28.4	25.9	25.2	23.8	22.3	20.5	19.1	17.3	15.9
80°	19.1	17.3	16.2	14.4	13.7	13.0	11.8	10.4	9.4	8.6	8.2
82.5°	9.4	7.9	7.5	6.5	6.1	5.8	5.0	4.6	3.9	3.9	3.9
85°	3.2	2.6	2.6	2.2	1.9	1.9	1.9	1.9	1.9	1.9	1.9
87.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.7	0.3
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):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	936.2	936.2	936.2	936.2	936.2	936.2	936.2	936.2	936.2	936.2	936.2
2.5°	932.6	932.3	931.9	931.5	931.5	931.1	931.1	930.8	930.8	930.4	930.4
5°	926.1	925.1	924.3	923.6	923.6	922.5	921.9	921.0	920.7	920.7	920.0
7.5°	917.1	915.7	914.2	913.2	912.8	911.1	909.6	909.6	908.2	907.4	906.7
10°	905.3	902.7	900.5	899.5	898.1	896.9	895.2	894.1	893.0	891.2	890.9
12.5°	889.0	887.3	884.0	882.5	881.8	879.6	876.8	875.3	875.0	873.6	872.4
15°	870.7	866.8	863.9	862.0	862.0	858.4	857.0	854.8	853.4	852.4	851.9
17.5°	846.9	843.0	840.1	837.5	836.8	833.9	831.8	831.0	829.3	830.0	828.2
20°	816.3	813.0	811.0	807.7	807.7	805.9	805.2	803.3	802.6	801.9	802.6
22.5°	783.6	779.5	775.9	775.6	775.6	773.1	772.8	772.3	770.9	772.0	771.6
25°	745.0	742.2	740.0	739.6	739.6	738.2	736.7	737.4	738.6	738.2	739.3
27.5°	705.0	702.1	701.5	701.1	700.4	699.9	700.8	700.8	701.8	703.2	704.7
30°	661.8	661.1	660.0	659.7	659.0	660.7	661.4	662.6	662.2	664.3	665.8
32.5°	618.6	617.2	616.8	617.6	618.6	618.3	620.4	621.2	621.9	624.4	625.5
35°	575.0	574.7	574.0	574.0	574.3	577.2	577.2	579.8	581.2	581.9	584.8
37.5°	528.3	529.7	530.4	531.5	531.9	532.9	533.6	536.2	537.5	539.1	540.4
40°	485.3	484.6	487.9	485.8	486.5	489.8	491.1	490.8	493.0	495.1	496.6
42.5°	439.6	440.7	441.5	442.2	443.9	444.4	446.1	448.7	449.4	451.9	452.6
45°	395.3	395.7	397.2	398.6	399.7	402.5	403.3	404.4	406.6	406.6	407.6
47.5°	353.6	355.1	355.1	357.2	359.0	358.7	361.1	361.9	361.6	363.3	364.0
50°	313.7	315.8	315.4	316.9	317.6	318.0	320.2	320.9	319.3	321.2	321.6
52.5°	275.5	276.5	277.9	278.4	277.6	279.4	278.7	280.1	279.8	281.2	279.8
55°	240.6	240.1	240.1	240.9	240.1	240.9	241.6	240.1	239.1	240.6	240.1
57.5°	205.6	205.6	204.9	206.0	204.9	203.8	203.5	202.4	201.3	201.3	200.9
60°	172.8	172.1	170.6	170.3	170.3	168.5	167.9	166.3	166.3	165.0	163.4
62.5°	142.2	140.5	139.3	139.3	138.6	136.9	133.6	131.4	130.7	128.5	128.2
65°	113.4	111.6	110.5	108.3	106.6	105.9	102.7	100.1	99.1	96.9	97.2
67.5°	87.1	84.2	81.0	79.6	78.5	76.0	74.9	73.1	72.0	72.0	72.0
70°	62.6	60.1	56.8	55.8	55.1	52.9	51.9	51.5	52.5	52.2	52.5
72.5°	42.1	39.6	38.2	37.5	36.8	35.6	36.4	36.8	36.0	36.4	36.8
75°	25.5	24.8	23.8	23.4	23.4	23.8	23.4	23.4	23.8	23.8	24.1
77.5°	14.7	14.0	14.0	13.7	14.4	14.0	14.0	14.0	14.4	14.4	14.4
80°	7.9	7.9	7.9	7.9	8.2	7.9	8.2	8.2	8.2	8.2	8.2
82.5°	3.9	3.9	3.9	4.3	4.3	4.3	4.3	4.3	4.3	4.3	3.9
85°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
87.5°	0.3	0.7	0.7	0.7	0.7	0.7	0.3	0.3	0.3	0.3	0.3
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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CATALOG NUMBER: LX4C20D010 EX4C209030 4LBLWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	936.2	936.2	936.2	936.2	936.2	936.2	936.2	936.2
2.5°	929.7	929.7	929.7	929.0	929.4	929.4	929.0	929.0
5°	919.6	919.3	918.6	918.6	917.8	918.6	918.3	918.6
7.5°	906.0	906.0	904.9	904.9	904.6	904.2	903.8	904.2
10°	889.7	889.7	889.0	888.7	889.0	887.6	887.6	887.3
12.5°	871.7	871.0	870.3	870.7	870.3	869.2	868.8	869.2
15°	850.9	849.8	850.2	849.1	849.1	848.7	849.5	849.5
17.5°	827.8	827.1	826.4	826.7	826.0	826.4	826.0	825.7
20°	802.3	801.9	801.9	800.5	800.9	800.5	800.9	801.9
22.5°	772.8	772.3	772.8	771.6	772.3	772.3	773.5	773.5
25°	740.3	740.0	740.7	741.0	741.4	742.5	741.4	741.8
27.5°	704.4	705.4	706.4	706.8	708.3	707.3	706.4	707.6
30°	667.9	667.9	667.6	669.1	670.1	671.2	669.4	669.4
32.5°	626.2	628.0	628.0	628.4	629.4	629.4	629.4	630.8
35°	586.3	587.3	587.7	586.3	587.0	586.6	589.0	589.0
37.5°	541.6	541.6	542.0	544.4	544.4	543.3	544.0	544.0
40°	499.0	499.4	498.0	498.7	500.5	499.8	500.5	501.2
42.5°	452.6	455.2	453.7	454.4	454.0	454.4	454.8	454.8
45°	408.3	409.0	409.0	409.4	410.2	410.9	408.7	408.3
47.5°	365.2	365.5	366.6	364.8	366.9	364.8	366.9	364.4
50°	321.6	322.9	321.9	322.6	321.6	321.6	321.2	320.9
52.5°	280.1	279.8	279.8	279.4	279.4	280.1	279.4	280.5
55°	238.7	239.1	238.4	238.0	237.7	238.7	237.7	237.0
57.5°	199.5	200.2	198.7	199.5	197.0	198.0	198.4	198.7
60°	163.1	162.1	162.1	160.5	160.5	161.7	160.2	160.2
62.5°	126.4	127.1	126.0	127.5	127.5	128.9	128.2	128.9
65°	96.9	97.2	97.6	97.6	97.6	99.8	99.1	97.9
67.5°	73.1	73.4	73.8	73.4	74.6	73.8	73.8	74.1
70°	52.9	53.2	53.7	53.7	53.2	53.7	53.7	53.7
72.5°	36.8	37.1	36.8	37.1	37.5	37.1	37.1	37.5
75°	24.1	24.1	23.8	23.8	23.8	23.8	24.1	23.8
77.5°	14.0	14.4	14.0	14.4	14.4	14.4	14.4	14.4
80°	8.2	8.2	8.2	7.9	8.2	8.2	8.2	7.9
82.5°	4.3	4.3	3.9	3.9	4.3	4.3	4.3	4.3
85°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
87.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	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)