

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: P857305

Luminaire Tested: **LX4C20D010 EX4C209030 4LBLWWH**

Issue Date: 2/14/2022

Test Information

Test Method: LM-79-08
Report Number: P857305
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

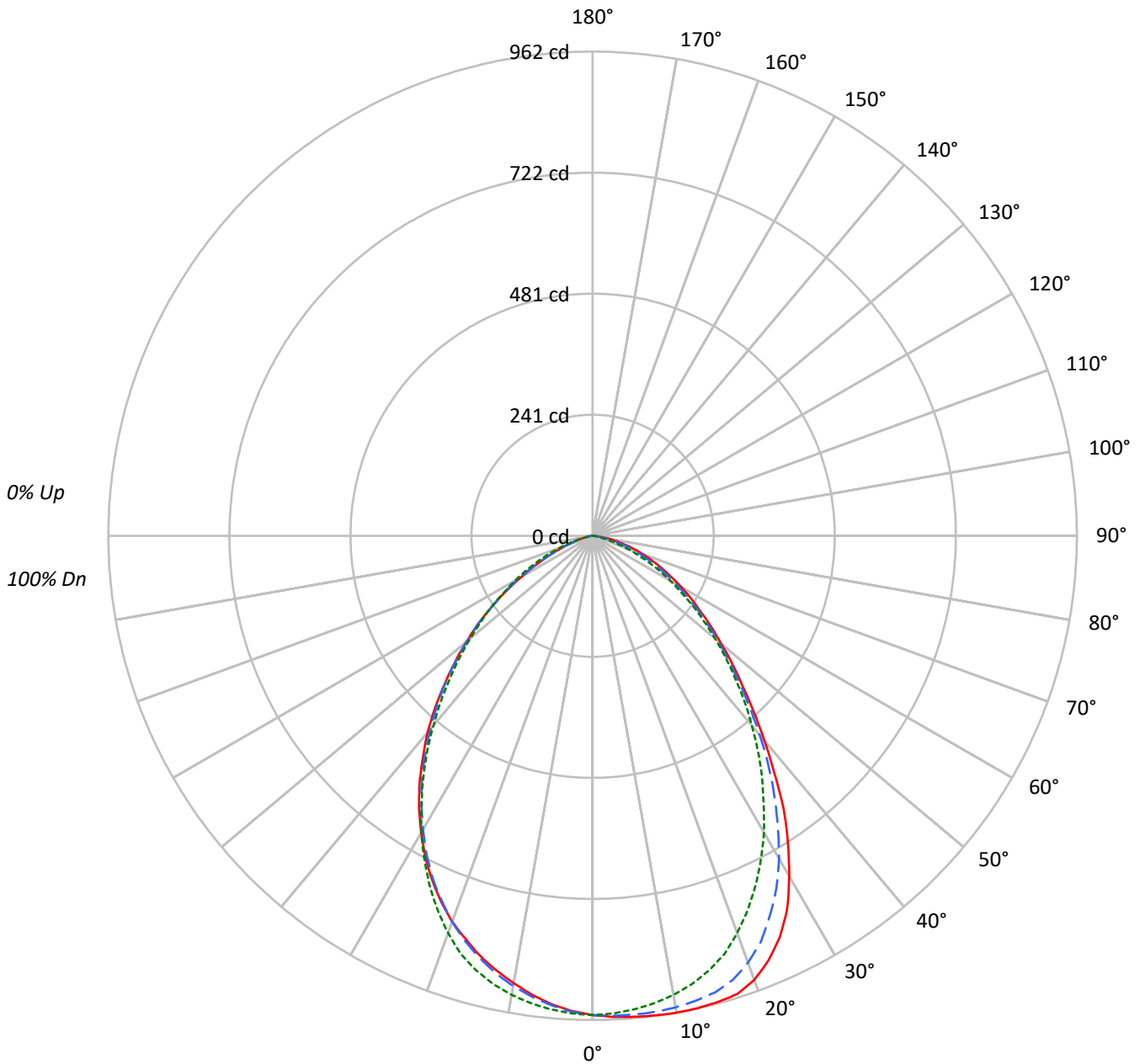
Lumens per Lamp: N/A
Luminaire Lumens: 1794.7 lumens
Efficiency: N/A
Efficacy: 55.1 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.09 / 1.17
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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°	116993	116993	116993
5°	118304	116503	115233
10°	120046	115517	112598
15°	122011	113667	109903
20°	122776	109807	106643
25°	119260	103875	102289
30°	110820	96549	96592
35°	99209	88006	89851
40°	84950	78888	81759
45°	73128	69566	72155
50°	63569	60568	62384
55°	55925	52091	51641
60°	49780	43466	40050
65°	43663	34796	28953
70°	37536	24605	19612
75°	30426	14288	11487
80°	21791	6155	5660
85°	8317	2678	2678



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.8	5.0
10°-20°	254.1	14.2
20°-30°	362.8	20.2
30°-40°	379.5	21.1
40°-50°	318.0	17.7
50°-60°	222.5	12.4
60°-70°	121.2	6.8
70°-80°	42.0	2.3
80°-90°	4.8	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°	706.6	39.4
0°-40°	1086.1	60.5
0°-60°	1626.6	90.6
0°-90°	1794.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1794.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	952	952	952	952	952	
5°	959	955	945	936	934	92
15°	959	939	894	868	864	271
25°	880	833	766	751	755	402
35°	662	629	587	591	599	410
45°	421	411	400	414	415	327
55°	261	252	243	243	241	236
65°	150	137	120	101	100	150
75°	64	52	30	24	24	69
85°	6	3	2	2	2	11
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°	952.3	952.3	952.3	952.3	952.3	952.3	952.3	952.3	952.3	952.3	952.3
2.5°	956.7	955.7	956.0	956.0	956.0	955.7	956.0	955.7	955.7	955.3	954.4
5°	959.3	958.6	958.6	958.6	958.1	957.8	957.8	957.4	956.7	956.4	954.9
7.5°	961.1	960.3	960.3	960.0	959.6	959.3	958.9	957.8	956.7	956.0	954.1
10°	962.3	961.1	961.1	960.3	959.6	959.3	958.6	957.1	955.7	953.7	951.2
12.5°	961.5	960.3	960.0	959.3	957.8	957.1	956.4	954.4	952.0	949.4	946.1
15°	959.3	958.6	957.8	956.7	954.9	953.7	953.0	950.1	946.8	943.1	939.1
17.5°	954.9	953.7	952.3	950.8	948.3	947.1	945.4	941.7	936.8	931.9	925.6
20°	939.1	938.4	936.8	934.4	930.4	928.9	926.3	921.6	915.3	909.2	902.6
22.5°	913.1	912.0	909.9	907.6	904.0	901.3	899.2	892.6	885.7	879.1	872.9
25°	879.8	878.8	875.8	872.9	869.2	864.8	862.6	857.5	850.5	842.0	832.9
27.5°	837.0	833.3	832.2	828.9	823.3	822.0	818.6	812.0	805.4	798.1	790.5
30°	781.2	781.2	779.1	777.5	772.6	770.9	767.3	760.4	756.7	746.4	740.6
32.5°	722.2	721.5	719.8	718.6	715.8	713.2	709.5	705.8	697.7	692.6	684.6
35°	661.5	657.1	657.8	655.6	653.9	650.9	650.5	646.5	639.2	636.3	628.9
37.5°	592.2	590.5	593.0	589.8	587.8	588.2	585.3	582.8	579.8	574.6	573.2
40°	529.7	531.1	530.8	527.8	529.4	527.4	524.5	521.9	520.5	517.1	516.1
42.5°	473.6	471.4	470.7	470.7	471.1	471.1	469.6	467.7	467.7	464.5	461.1
45°	420.9	420.9	420.1	422.3	419.0	419.0	418.0	417.6	416.0	415.3	411.4
47.5°	375.4	375.1	374.7	374.3	373.9	373.9	371.8	370.0	369.5	367.3	365.2
50°	332.6	334.8	334.0	332.1	331.4	331.8	330.4	329.4	329.0	325.2	325.7
52.5°	296.6	296.3	297.0	295.9	294.2	294.5	293.0	291.5	290.0	288.3	286.9
55°	261.1	263.0	262.3	261.1	260.8	260.1	259.0	257.1	256.7	252.8	252.4
57.5°	231.5	231.1	230.4	228.6	228.2	227.1	227.1	225.6	223.5	221.2	219.3
60°	202.6	202.6	201.4	201.1	199.7	199.3	199.0	197.4	194.8	193.1	190.1
62.5°	174.8	175.5	174.8	173.5	172.5	171.1	170.3	169.2	166.9	165.2	162.5
65°	150.2	149.8	149.4	148.0	147.6	146.2	145.8	143.6	141.4	140.0	137.0
67.5°	126.7	125.6	125.6	124.9	124.1	123.1	122.4	120.1	117.5	116.1	113.1
70°	104.5	103.6	103.6	103.6	101.8	100.8	100.4	99.3	95.6	94.2	91.2
72.5°	83.9	83.5	83.2	82.0	81.0	81.0	79.5	77.3	75.4	73.6	71.4
75°	64.1	64.8	64.1	62.7	62.3	61.4	60.4	58.7	56.8	54.6	52.1
77.5°	46.9	46.2	45.5	45.5	44.8	43.2	42.8	41.4	39.2	37.7	35.2
80°	30.8	30.4	29.6	28.9	28.6	28.2	27.9	26.3	24.2	23.1	20.9
82.5°	16.9	16.5	16.5	16.2	15.0	15.0	14.6	13.2	12.0	11.3	10.3
85°	5.9	5.9	5.9	5.6	5.6	5.6	5.1	4.7	4.4	4.0	3.3
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°	952.3	952.3	952.3	952.3	952.3	952.3	952.3	952.3	952.3	952.3	952.3
2.5°	953.7	953.0	952.7	952.3	952.0	951.6	951.2	950.5	950.1	949.8	949.0
5°	953.7	952.3	951.6	950.5	949.8	949.0	947.9	946.8	945.7	944.7	943.5
7.5°	952.3	950.1	948.6	946.4	945.7	944.7	942.4	941.0	939.1	936.8	934.4
10°	948.6	946.1	943.1	940.2	939.1	937.3	934.4	931.9	928.9	926.0	923.4
12.5°	942.7	938.8	935.1	931.1	928.9	927.1	923.0	919.3	915.7	912.3	908.0
15°	934.1	929.2	924.5	918.9	916.5	914.3	908.4	904.0	898.1	893.7	889.3
17.5°	919.8	912.3	906.5	899.6	895.9	893.3	888.2	881.3	875.8	871.0	865.8
20°	895.2	888.2	880.1	872.5	868.5	865.1	857.8	850.5	845.0	839.9	834.3
22.5°	862.9	854.1	848.2	838.8	835.5	831.4	822.7	816.1	809.8	804.7	799.5
25°	823.7	816.1	808.1	799.2	795.1	790.5	783.1	776.1	772.2	766.3	760.1
27.5°	778.7	772.6	762.6	755.0	750.9	747.1	740.2	734.0	728.1	724.1	718.2
30°	731.1	723.7	714.9	707.0	704.7	700.3	694.0	689.4	683.0	680.6	678.0
32.5°	678.7	670.3	663.7	658.5	654.2	650.5	647.2	639.5	638.5	631.9	631.1
35°	621.6	617.9	611.6	607.4	603.7	601.1	595.6	591.9	587.8	586.8	584.2
37.5°	567.7	563.3	557.5	553.4	550.9	550.6	546.4	544.3	541.4	539.9	537.0
40°	511.2	509.5	504.3	503.6	499.5	499.2	497.0	494.6	491.9	491.9	492.3
42.5°	459.4	457.1	454.9	452.3	450.1	450.1	449.1	448.3	447.6	446.4	448.3
45°	410.6	407.7	406.3	403.6	404.7	402.5	401.8	401.8	400.7	400.4	402.9
47.5°	365.2	361.9	360.4	359.7	359.7	360.0	356.7	357.9	357.5	358.3	359.3
50°	323.8	320.8	318.7	318.7	319.1	317.6	316.1	317.2	316.1	316.9	319.4
52.5°	285.3	282.4	281.3	281.3	279.0	278.7	279.4	278.0	278.3	278.7	280.2
55°	249.8	248.0	246.2	244.2	244.7	243.9	242.5	242.1	242.8	243.2	245.0
57.5°	218.0	215.3	212.9	212.1	211.4	211.4	209.5	209.1	210.0	208.0	208.0
60°	187.5	186.0	182.8	181.7	181.7	179.8	178.4	179.1	177.2	176.9	177.2
62.5°	159.3	158.3	156.0	153.9	153.2	152.4	150.5	149.8	149.0	147.6	145.4
65°	134.8	132.2	129.7	128.2	127.0	125.3	124.1	122.7	120.4	119.7	117.5
67.5°	110.2	107.7	105.2	104.1	102.9	101.8	100.0	98.2	95.6	92.7	90.1
70°	88.6	85.3	83.9	81.0	80.3	78.7	76.2	74.4	71.7	68.5	65.9
72.5°	67.7	65.6	63.4	60.7	59.0	57.8	55.7	52.8	49.8	48.0	45.5
75°	48.7	47.7	44.8	41.8	41.1	39.6	37.0	35.2	33.0	30.1	27.9
77.5°	33.0	30.8	28.9	26.3	25.6	24.2	22.7	20.9	19.4	17.6	16.2
80°	19.4	17.6	16.5	14.6	13.9	13.2	12.0	10.6	9.6	8.7	8.3
82.5°	9.6	8.0	7.6	6.6	6.2	5.9	5.1	4.7	4.0	4.0	4.0
85°	3.3	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°	952.3	952.3	952.3	952.3	952.3	952.3	952.3	952.3	952.3	952.3	952.3
2.5°	948.6	948.3	947.9	947.5	947.5	947.1	947.1	946.8	946.8	946.4	946.4
5°	942.0	941.0	940.2	939.5	939.5	938.4	937.8	936.8	936.5	936.5	935.8
7.5°	932.9	931.5	929.9	928.9	928.5	926.8	925.2	925.2	923.8	923.0	922.3
10°	920.9	918.2	916.0	915.0	913.5	912.3	910.6	909.5	908.4	906.5	906.2
12.5°	904.3	902.6	899.2	897.7	897.0	894.7	891.9	890.4	890.0	888.6	887.4
15°	885.7	881.7	878.8	876.8	876.8	873.2	871.7	869.5	868.1	867.1	866.6
17.5°	861.5	857.5	854.5	851.9	851.2	848.2	846.1	845.3	843.6	844.3	842.4
20°	830.3	827.0	824.9	821.6	821.6	819.8	819.0	817.1	816.4	815.7	816.4
22.5°	797.1	792.9	789.2	788.9	788.9	786.4	786.1	785.6	784.2	785.3	784.9
25°	757.8	755.0	752.7	752.3	752.3	750.9	749.4	750.1	751.3	750.9	752.0
27.5°	717.1	714.2	713.6	713.2	712.4	711.9	712.9	712.9	713.9	715.3	716.8
30°	673.2	672.5	671.4	671.0	670.3	672.1	672.8	674.0	673.6	675.7	677.3
32.5°	629.2	627.8	627.4	628.2	629.2	628.9	631.1	631.9	632.6	635.1	636.3
35°	584.9	584.6	583.9	583.9	584.2	587.1	587.1	589.8	591.2	591.9	594.9
37.5°	537.4	538.8	539.5	540.6	541.0	542.1	542.8	545.4	546.7	548.4	549.7
40°	493.6	492.9	496.3	494.2	494.9	498.2	499.5	499.2	501.5	503.6	505.1
42.5°	447.2	448.3	449.1	449.8	451.5	452.0	453.8	456.4	457.1	459.7	460.4
45°	402.1	402.5	404.0	405.5	406.6	409.4	410.2	411.4	413.6	413.6	414.6
47.5°	359.7	361.2	361.2	363.3	365.2	364.9	367.3	368.1	367.8	369.5	370.3
50°	319.1	321.2	320.8	322.4	323.1	323.5	325.7	326.4	324.8	326.7	327.1
52.5°	280.2	281.3	282.7	283.2	282.4	284.2	283.5	284.9	284.6	286.0	284.6
55°	244.7	244.2	244.2	245.0	244.2	245.0	245.8	244.2	243.2	244.7	244.2
57.5°	209.1	209.1	208.4	209.5	208.4	207.3	207.0	205.9	204.8	204.8	204.4
60°	175.8	175.1	173.5	173.2	173.2	171.4	170.8	169.2	169.2	167.8	166.2
62.5°	144.6	142.9	141.7	141.7	141.0	139.3	135.9	133.7	132.9	130.7	130.4
65°	115.4	113.5	112.4	110.2	108.4	107.7	104.5	101.8	100.8	98.6	98.9
67.5°	88.6	85.6	82.4	81.0	79.9	77.3	76.2	74.4	73.2	73.2	73.2
70°	63.7	61.1	57.8	56.8	56.0	53.8	52.8	52.4	53.4	53.1	53.4
72.5°	42.8	40.3	38.9	38.1	37.4	36.2	37.0	37.4	36.6	37.0	37.4
75°	25.9	25.2	24.2	23.8	23.8	24.2	23.8	23.8	24.2	24.2	24.5
77.5°	15.0	14.2	14.2	13.9	14.6	14.2	14.2	14.2	14.6	14.6	14.6
80°	8.0	8.0	8.0	8.0	8.3	8.0	8.3	8.3	8.3	8.3	8.3
82.5°	4.0	4.0	4.0	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.0
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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CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	952.3	952.3	952.3	952.3	952.3	952.3	952.3	952.3
2.5°	945.7	945.7	945.7	945.0	945.4	945.4	945.0	945.0
5°	935.4	935.1	934.4	934.4	933.6	934.4	934.1	934.4
7.5°	921.6	921.6	920.5	920.5	920.2	919.8	919.3	919.8
10°	905.0	905.0	904.3	904.0	904.3	902.9	902.9	902.6
12.5°	886.7	886.0	885.3	885.7	885.3	884.2	883.7	884.2
15°	865.5	864.4	864.8	863.7	863.7	863.3	864.1	864.1
17.5°	842.0	841.3	840.6	840.9	840.2	840.6	840.2	839.9
20°	816.1	815.7	815.7	814.3	814.7	814.3	814.7	815.7
22.5°	786.1	785.6	786.1	784.9	785.6	785.6	786.8	786.8
25°	753.0	752.7	753.4	753.7	754.2	755.3	754.2	754.6
27.5°	716.5	717.5	718.6	719.0	720.5	719.5	718.6	719.8
30°	679.4	679.4	679.1	680.6	681.6	682.7	680.9	680.9
32.5°	637.0	638.8	638.8	639.2	640.2	640.2	640.2	641.6
35°	596.4	597.4	597.8	596.4	597.1	596.7	599.1	599.1
37.5°	550.9	550.9	551.3	553.8	553.8	552.6	553.4	553.4
40°	507.6	508.0	506.6	507.3	509.1	508.4	509.1	509.8
42.5°	460.4	463.0	461.5	462.2	461.8	462.2	462.6	462.6
45°	415.3	416.0	416.0	416.4	417.3	418.0	415.7	415.3
47.5°	371.5	371.8	372.9	371.1	373.2	371.1	373.2	370.7
50°	327.1	328.5	327.4	328.1	327.1	327.1	326.7	326.4
52.5°	284.9	284.6	284.6	284.2	284.2	284.9	284.2	285.3
55°	242.8	243.2	242.5	242.1	241.8	242.8	241.8	241.1
57.5°	202.9	203.6	202.1	202.9	200.4	201.4	201.8	202.1
60°	165.9	164.9	164.9	163.3	163.3	164.5	163.0	163.0
62.5°	128.6	129.3	128.2	129.7	129.7	131.1	130.4	131.1
65°	98.6	98.9	99.3	99.3	99.3	101.5	100.8	99.6
67.5°	74.4	74.7	75.1	74.7	75.9	75.1	75.1	75.4
70°	53.8	54.1	54.6	54.6	54.1	54.6	54.6	54.6
72.5°	37.4	37.7	37.4	37.7	38.1	37.7	37.7	38.1
75°	24.5	24.5	24.2	24.2	24.2	24.2	24.5	24.2
77.5°	14.2	14.6	14.2	14.6	14.6	14.6	14.6	14.6
80°	8.3	8.3	8.3	8.0	8.3	8.3	8.3	8.0
82.5°	4.4	4.4	4.0	4.0	4.4	4.4	4.4	4.4
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)