

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: P857304

Luminaire Tested: **LX4C20D010 EX4C209030 4LBLWW***

Issue Date: 2/9/2022



Test Information

Test Method: LM-79-08
Report Number: P857304
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: LX4C20D010 EX4C209030 4LBLWW*
Description: 4 INCH 2000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LRLWW TRIM WITH * FINISH, DIM TO WARM
Light Source: -
Ballast/Driver: -

Summary

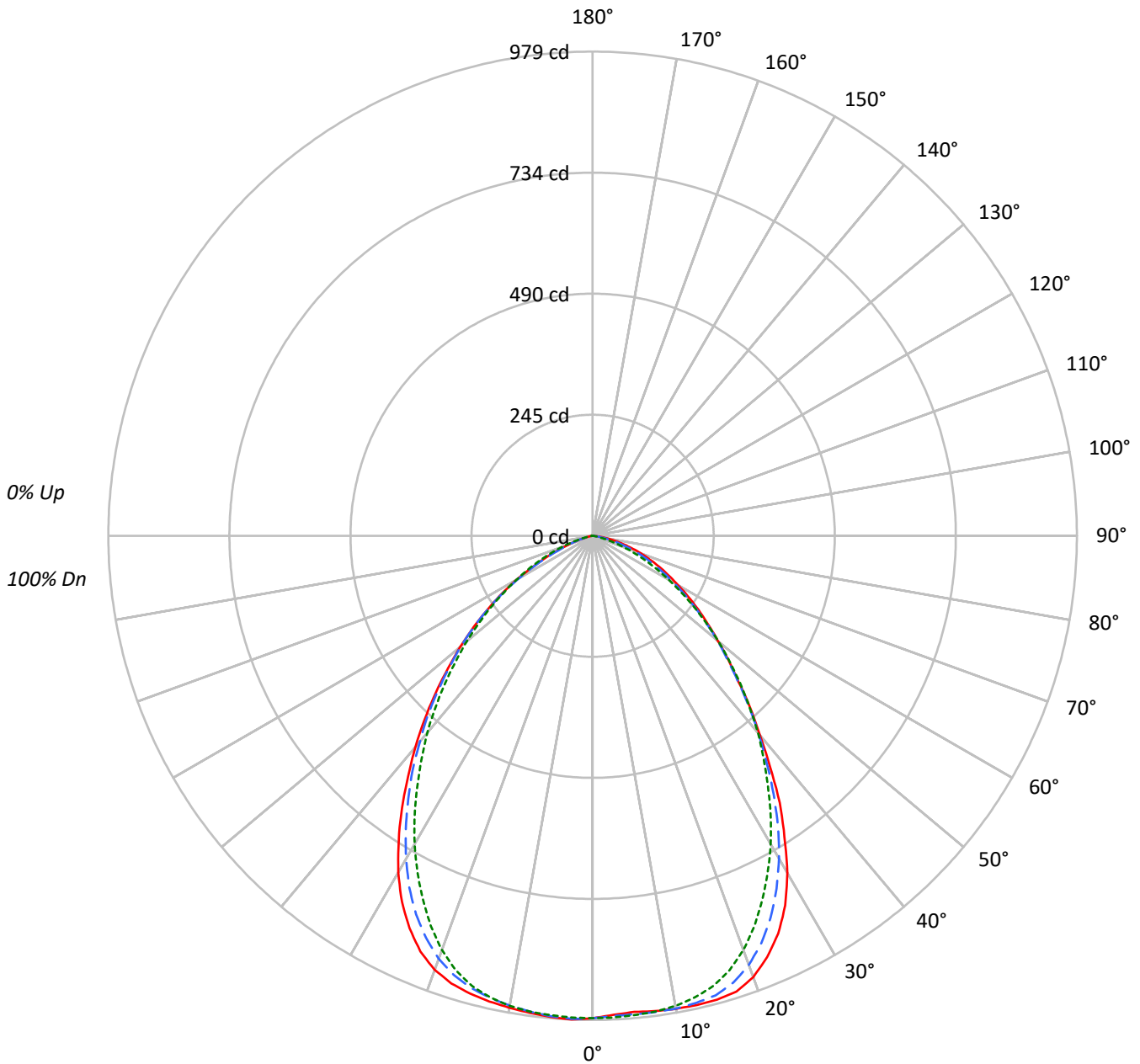
Lumens per Lamp: N/A
Luminaire Lumens: 1870.2 lumens
Efficiency: N/A
Efficacy: 57.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.12 / 1.18
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 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									
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°	119844	119844	119844
5°	119167	119993	120437
10°	121143	120407	120869
15°	123512	119874	121871
20°	124149	116514	122070
25°	120318	110043	118677
30°	111686	102110	111459
35°	98879	92610	100769
40°	84309	83410	89360
45°	72415	73249	77853
50°	63205	63377	66722
55°	55860	53504	55325
60°	48969	43662	43466
65°	43343	33866	30174
70°	36962	23276	17888
75°	29904	12531	8164
80°	20446	3113	2052
85°	6202	987	987



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.7	5.0
10°-20°	268.4	14.4
20°-30°	387.8	20.7
30°-40°	400.9	21.4
40°-50°	331.3	17.7
50°-60°	228.6	12.2
60°-70°	119.7	6.4
70°-80°	37.7	2.0
80°-90°	3.2	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°	748.9	40.0
0°-40°	1149.8	61.5
0°-60°	1709.7	91.4
0°-90°	1870.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1870.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	976	976	976	976	976	
5°	966	971	973	975	977	93
15°	971	962	942	947	958	274
25°	888	852	812	844	876	405
35°	659	637	618	650	672	409
45°	417	415	422	441	448	325
55°	261	253	250	257	258	234
65°	149	135	116	97	104	148
75°	63	49	26	18	17	68
85°	4	2	1	1	1	9
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°	975.5	975.5	975.5	975.5	975.5	975.5	975.5	975.5	975.5	975.5	975.5
2.5°	969.3	969.7	969.7	970.4	970.4	970.4	970.7	970.7	971.1	971.4	971.8
5°	966.3	966.3	967.1	967.5	968.2	968.5	969.3	969.7	970.4	970.7	971.1
7.5°	969.3	969.3	969.7	970.0	970.0	970.4	970.4	970.7	971.1	971.4	971.4
10°	971.1	971.1	971.1	971.1	971.4	971.4	971.4	971.1	971.1	971.1	970.7
12.5°	971.8	971.8	971.4	971.1	971.4	971.1	971.1	970.0	969.3	968.5	967.5
15°	971.1	971.1	970.7	970.4	970.0	969.3	968.9	967.1	965.6	963.4	961.9
17.5°	966.3	965.6	964.8	964.1	962.7	961.6	960.8	957.5	954.9	951.3	947.2
20°	949.6	948.8	947.6	945.9	944.0	942.5	940.3	935.6	933.0	927.6	923.4
22.5°	922.0	921.3	921.7	918.3	914.7	912.4	911.0	907.0	902.7	895.7	891.2
25°	887.6	885.5	885.5	880.3	878.5	876.9	875.2	870.3	863.7	857.6	851.7
27.5°	842.9	840.0	838.5	837.8	833.4	830.1	827.5	823.8	818.3	812.8	804.8
30°	787.3	786.9	785.0	781.7	778.5	777.0	774.1	767.8	762.7	758.6	753.5
32.5°	721.7	721.3	721.3	721.3	719.1	718.8	714.4	711.0	707.1	700.7	697.5
35°	659.3	659.0	659.3	654.0	652.4	651.3	651.0	648.8	643.3	640.3	637.4
37.5°	589.1	590.1	589.4	587.9	589.8	586.4	589.1	584.3	582.0	581.3	578.1
40°	525.7	528.6	525.7	526.0	527.9	524.6	524.6	523.8	522.3	521.6	520.9
42.5°	471.5	467.7	469.9	468.2	469.9	468.9	467.0	468.2	468.5	467.0	466.7
45°	416.8	417.6	418.3	417.3	417.3	416.1	419.1	417.3	417.3	417.6	415.0
47.5°	372.5	371.5	372.2	371.5	371.8	371.1	371.8	372.2	371.5	371.5	369.2
50°	330.7	330.1	332.6	330.4	330.4	330.1	330.4	329.7	328.7	328.7	329.4
52.5°	294.5	293.1	292.8	294.5	291.9	291.9	292.2	291.5	290.1	289.4	287.6
55°	260.8	260.4	260.8	259.4	258.7	258.7	256.7	256.0	255.7	253.8	252.8
57.5°	229.3	228.2	228.6	228.2	226.8	226.4	224.9	224.9	223.5	222.0	220.2
60°	199.3	199.3	200.4	199.0	197.7	197.0	196.3	195.6	193.1	190.4	188.3
62.5°	172.5	172.8	172.5	171.4	170.8	169.9	169.2	167.1	164.9	163.5	160.8
65°	149.1	148.7	147.6	146.9	145.1	145.1	143.6	142.5	140.0	137.7	135.2
67.5°	124.9	124.1	124.1	124.1	122.0	121.7	120.8	118.7	116.5	113.5	111.4
70°	102.9	103.8	102.5	101.5	100.4	100.1	98.9	96.7	94.2	91.2	89.4
72.5°	82.0	82.8	81.7	81.3	79.1	78.3	78.0	76.2	73.2	71.4	68.6
75°	63.0	63.4	62.7	61.9	60.4	60.0	58.3	56.8	55.0	52.1	49.4
77.5°	45.5	44.8	44.8	43.2	41.8	41.8	41.4	39.2	36.6	34.5	32.2
80°	28.9	28.6	27.5	26.8	25.6	25.2	24.9	23.1	21.3	19.8	18.3
82.5°	14.6	14.2	13.9	13.5	12.8	12.0	12.5	11.0	10.3	8.8	7.6
85°	4.4	4.7	4.7	4.4	4.0	4.0	4.0	3.7	2.9	2.6	2.2
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°	975.5	975.5	975.5	975.5	975.5	975.5	975.5	975.5	975.5	975.5	975.5
2.5°	972.1	972.5	973.0	973.4	973.4	973.7	974.1	974.4	974.8	974.8	975.1
5°	971.4	972.1	972.1	972.5	972.5	972.5	973.0	973.0	973.0	973.0	973.4
7.5°	971.8	971.8	971.8	971.4	971.4	971.1	971.1	971.1	970.4	970.4	970.4
10°	970.0	969.7	969.3	968.5	968.2	967.8	967.1	966.3	965.6	965.2	964.5
12.5°	966.3	964.8	963.4	961.9	961.2	960.8	959.4	958.2	957.2	956.1	955.5
15°	959.0	956.8	954.2	951.3	950.6	949.9	947.2	945.2	943.7	942.5	940.7
17.5°	944.3	940.0	937.0	932.7	930.8	930.0	926.1	923.9	921.3	920.6	919.0
20°	918.3	914.4	908.8	904.8	902.7	900.4	897.1	894.1	891.2	891.2	889.4
22.5°	885.8	880.6	873.7	868.6	868.2	863.7	860.9	857.6	856.4	854.2	854.2
25°	844.7	840.4	832.7	828.2	826.1	824.9	820.2	815.8	813.6	811.8	813.3
27.5°	799.3	792.7	786.9	781.4	779.5	777.3	773.0	771.1	767.1	766.8	766.4
30°	747.2	740.6	734.8	732.3	728.6	726.7	723.4	721.3	719.8	719.8	719.1
32.5°	692.7	686.8	683.9	678.5	676.5	674.0	671.9	669.6	670.3	669.6	669.9
35°	633.7	632.2	626.8	623.4	623.4	623.1	619.5	617.9	617.2	617.5	619.5
37.5°	577.7	573.3	569.6	567.4	569.2	567.1	566.7	566.7	568.8	567.4	570.3
40°	518.0	517.7	516.1	516.8	517.2	514.7	515.4	515.7	517.2	520.1	520.6
42.5°	466.0	465.6	465.6	465.6	464.9	463.3	464.9	467.4	467.0	469.2	471.1
45°	415.8	415.0	416.5	415.4	417.6	418.3	417.3	418.0	420.2	421.6	424.6
47.5°	370.1	370.1	370.4	371.1	368.8	370.8	371.5	372.9	374.0	374.7	376.2
50°	327.4	327.4	326.7	326.7	326.7	327.9	326.4	328.3	328.7	331.6	333.3
52.5°	288.3	286.4	287.6	286.9	285.3	284.6	285.3	285.8	287.9	288.6	290.8
55°	250.9	250.9	248.0	247.3	248.4	248.0	247.7	247.7	248.7	249.8	251.7
57.5°	218.0	215.8	213.6	213.2	212.2	212.5	212.5	212.2	211.4	211.7	212.2
60°	186.8	185.3	182.1	182.1	181.7	181.4	179.4	179.1	177.3	177.7	176.2
62.5°	158.3	157.6	153.2	151.7	151.7	150.5	148.7	148.3	145.9	145.9	144.3
65°	132.6	130.4	127.8	125.3	125.3	123.8	122.7	119.4	117.7	116.5	114.3
67.5°	109.1	105.9	103.2	101.1	99.6	99.3	96.7	94.5	91.5	89.8	86.5
70°	86.5	83.9	81.3	79.1	77.6	76.2	73.6	70.3	68.1	64.8	62.7
72.5°	65.2	63.0	60.7	58.0	56.0	55.0	52.4	49.4	45.8	43.5	40.7
75°	46.9	44.3	41.4	38.9	37.7	36.6	33.8	31.5	28.9	26.4	23.5
77.5°	30.4	27.5	25.2	22.3	22.0	21.3	18.3	16.2	14.2	12.8	11.0
80°	16.2	14.6	12.8	11.0	10.3	9.2	7.6	6.6	5.6	4.4	3.7
82.5°	6.9	5.9	4.7	4.0	3.7	3.3	2.6	2.2	1.9	1.9	1.4
85°	1.9	1.4	1.4	1.0	0.7	0.7	0.7	0.7	0.7	0.7	0.7
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°	975.5	975.5	975.5	975.5	975.5	975.5	975.5	975.5	975.5	975.5	975.5
2.5°	975.5	975.8	976.3	976.3	976.6	977.0	977.0	977.3	977.7	978.0	978.0
5°	973.7	973.7	973.7	974.1	974.1	974.1	974.1	974.8	974.8	975.1	975.5
7.5°	970.0	970.0	970.0	970.0	969.7	970.0	969.7	969.7	970.4	970.7	971.1
10°	964.1	963.8	963.8	963.4	963.4	963.4	963.8	964.1	964.5	964.8	966.0
12.5°	954.9	954.5	954.5	954.2	954.2	954.5	954.9	955.8	957.2	957.9	959.4
15°	940.3	940.0	940.3	940.7	941.5	942.5	943.7	944.8	946.9	948.8	950.6
17.5°	919.0	919.4	919.8	920.6	921.7	923.1	926.1	929.0	931.6	934.5	937.3
20°	889.8	891.2	891.6	894.1	894.8	898.2	901.4	905.8	910.0	913.6	917.6
22.5°	854.7	855.7	857.2	860.0	862.0	866.3	870.3	875.5	879.9	884.7	890.6
25°	814.7	815.1	819.5	819.5	823.8	827.5	832.2	837.8	844.4	850.6	854.7
27.5°	769.2	771.1	774.4	775.8	779.1	785.0	789.0	795.7	802.3	807.7	812.1
30°	721.7	723.0	728.6	729.3	731.9	737.0	742.6	748.8	753.8	760.2	764.1
32.5°	671.6	675.5	678.8	681.3	682.1	689.8	692.7	697.1	703.0	709.2	713.2
35°	622.7	624.6	629.3	630.8	633.0	637.4	643.3	646.9	649.8	654.0	658.6
37.5°	571.1	576.7	577.7	582.0	582.8	586.8	589.8	594.2	597.9	601.6	602.3
40°	523.0	525.0	528.9	530.1	530.8	536.3	539.9	541.0	542.9	546.2	550.6
42.5°	474.3	476.3	480.6	479.5	482.9	485.3	487.2	491.6	493.4	494.6	494.6
45°	426.4	427.1	430.1	431.5	433.4	434.9	438.1	440.3	441.1	444.4	445.4
47.5°	380.6	381.3	383.5	386.1	385.4	387.1	390.9	392.0	392.3	394.6	395.6
50°	335.6	337.3	340.3	339.5	341.9	342.9	346.2	346.9	346.9	347.3	347.6
52.5°	293.5	294.9	295.6	296.4	297.4	299.3	300.8	300.1	301.5	302.9	301.8
55°	251.7	252.8	254.6	255.3	255.3	255.7	255.0	258.3	256.7	256.4	256.7
57.5°	213.6	212.2	211.7	213.6	214.3	213.9	212.9	214.3	214.3	213.6	212.5
60°	176.5	175.5	175.1	175.5	174.0	172.8	173.7	172.8	171.1	170.4	170.8
62.5°	142.9	141.7	138.8	138.8	138.0	137.7	134.8	135.2	133.7	131.5	132.2
65°	111.8	108.8	107.4	107.0	104.5	102.2	101.5	98.9	96.7	96.3	96.7
67.5°	83.9	80.6	78.0	76.9	75.5	73.6	71.0	68.9	69.6	69.3	70.7
70°	58.3	56.0	53.4	51.7	52.4	50.1	48.7	48.7	49.1	49.4	50.1
72.5°	38.9	35.9	34.8	33.8	33.0	31.5	32.2	32.2	31.8	32.2	31.5
75°	22.0	20.5	19.4	19.0	18.3	18.3	18.3	18.3	17.9	17.6	17.6
77.5°	9.9	9.2	8.8	8.3	8.3	8.3	8.0	7.6	7.6	7.6	7.3
80°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
82.5°	1.4	1.4	1.9	1.9	1.9	1.4	1.9	1.9	1.4	1.4	1.9
85°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
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



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CATALOG NUMBER: LX4C20D010 EX4C209030 4LBLWW*

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	975.5	975.5	975.5	975.5	975.5	975.5	975.5	975.5
2.5°	978.4	978.7	978.7	978.7	979.2	979.2	979.2	979.2
5°	975.8	976.3	976.3	976.3	976.6	976.6	976.6	976.6
7.5°	971.4	971.8	971.8	972.1	972.1	972.5	972.5	973.0
10°	966.3	967.1	967.5	967.8	968.2	968.5	968.5	968.9
12.5°	960.8	961.6	961.9	962.7	963.4	963.8	964.1	964.5
15°	952.8	954.2	954.9	955.5	956.8	957.5	957.9	958.2
17.5°	940.0	942.9	944.0	944.8	946.2	947.6	948.8	949.1
20°	921.7	924.9	926.4	928.3	930.4	932.3	933.0	933.7
22.5°	896.1	899.7	901.8	904.1	905.8	907.7	910.7	909.6
25°	859.3	865.6	868.2	869.3	873.3	875.5	876.9	875.5
27.5°	818.3	822.1	824.2	826.8	829.7	831.9	832.7	834.8
30°	768.9	775.1	774.8	777.3	781.0	783.1	784.0	785.7
32.5°	717.6	720.6	722.7	722.4	723.9	727.9	726.4	729.6
35°	663.0	663.4	667.0	666.7	669.6	669.6	669.6	671.9
37.5°	604.8	609.2	607.4	611.8	610.3	611.3	611.3	612.2
40°	551.6	553.2	553.2	554.6	555.8	554.6	555.3	557.2
42.5°	496.8	498.2	498.5	497.8	498.8	502.2	499.8	501.8
45°	445.4	446.4	448.1	447.0	448.7	447.7	448.7	448.1
47.5°	397.0	396.7	396.3	399.3	396.7	397.0	398.5	396.0
50°	347.6	349.8	348.3	349.5	350.2	350.2	349.1	349.1
52.5°	303.7	303.3	302.2	303.3	302.5	302.9	303.7	302.9
55°	258.3	259.7	259.0	258.7	259.0	259.0	261.2	258.3
57.5°	213.6	212.9	213.9	216.6	213.9	215.8	216.9	217.3
60°	171.1	171.1	173.2	172.1	174.3	176.2	177.7	176.9
62.5°	130.4	132.2	132.9	133.4	135.6	137.0	137.0	136.6
65°	96.7	99.3	99.3	100.8	101.5	101.5	102.2	103.8
67.5°	71.4	71.4	71.7	72.5	72.2	72.2	72.9	73.2
70°	49.8	49.1	50.1	49.8	49.8	49.4	49.8	49.8
72.5°	31.5	31.5	31.8	31.5	30.8	31.1	31.1	31.8
75°	16.9	17.6	16.9	16.9	17.2	16.5	16.9	17.2
77.5°	6.9	6.9	6.9	6.9	6.9	6.6	6.6	6.6
80°	3.3	3.3	3.3	3.3	3.3	3.3	2.9	2.9
82.5°	1.4	1.9	1.4	1.9	1.4	1.4	1.4	1.4
85°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
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)