

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: P843258

Luminaire Tested: **LD4C08DE010B40 EU4C08B40 4LBLWWH**

Issue Date: 5/7/2024



Test Information

Test Method: LM-79-08
Report Number: P843258
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2107-320-2)
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C08DE010B40 EU4C08B40 4LBLWWH
Description: 4in Downlight with BioUp LEDs
Light Source: -
Ballast/Driver:

Summary

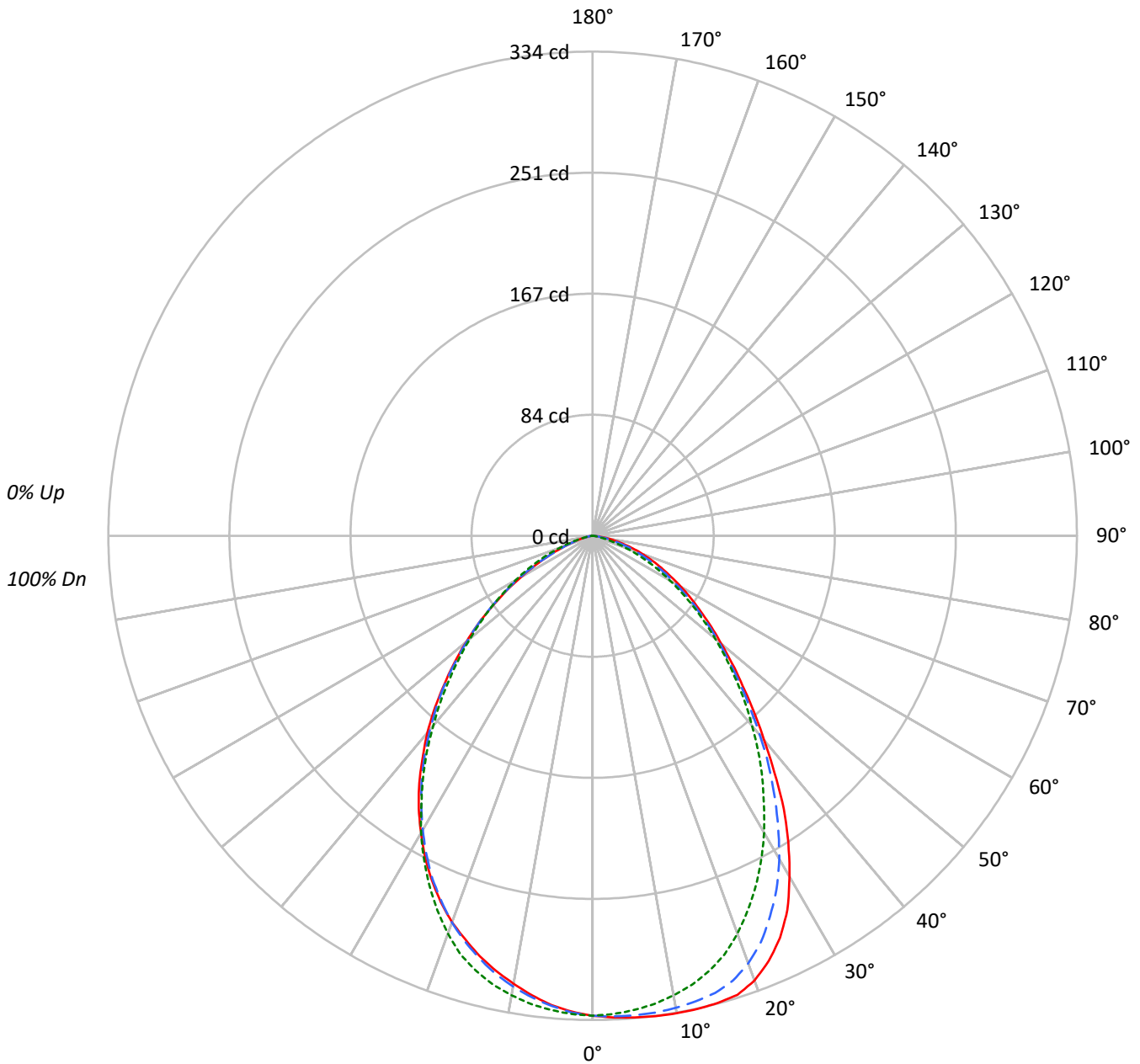
Lumens per Lamp: N/A
Luminaire Lumens: 624.0 lumens
Efficiency: N/A
Efficacy: 65.0 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.09 / 1.17
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 9.6
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: P843258

CATALOG NUMBER: LD4C08DE010B40 EU4C08B40 4LBLWWH

Luminous Intensity Polar Plot





TEST NUMBER: P843258

CATALOG NUMBER: LD4C08DE010B40 EU4C08B40 4LBLWWH

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	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°	40677	40677	40677
5°	41140	40499	40068
10°	41728	40157	39146
15°	42430	39517	38207
20°	42686	38175	37090
25°	41466	36112	35556
30°	38529	33564	33578
35°	34495	30595	31255
40°	29525	27424	28434
45°	25436	24185	25088
50°	22094	21062	21693
55°	19470	18120	17949
60°	17298	15136	13932
65°	15174	12122	10087
70°	13039	8549	6789
75°	10585	4984	3987
80°	7570	2193	1910
85°	2819	846	846



TEST NUMBER: P843258

CATALOG NUMBER: LD4C08DE010B40 EU4C08B40 4LBLWWH

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.2	5.0
10°-20°	88.3	14.2
20°-30°	126.1	20.2
30°-40°	132.0	21.1
40°-50°	110.6	17.7
50°-60°	77.4	12.4
60°-70°	42.1	6.8
70°-80°	14.6	2.3
80°-90°	1.7	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°	245.7	39.4
0°-40°	377.6	60.5
0°-60°	565.6	90.6
0°-90°	624.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	624.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	331	331	331	331	331	
5°	334	332	328	326	325	32
15°	334	326	311	302	300	94
25°	306	290	266	261	262	140
35°	230	219	204	206	208	143
45°	146	143	139	144	144	114
55°	91	88	85	85	84	82
65°	52	48	42	35	35	52
75°	22	18	10	8	8	24
85°	2	1	1	1	1	4
90°	0	0	0	0	0	



TEST NUMBER: P843258

CATALOG NUMBER: LD4C08DE010B40 EU4C08B40 4LBLWWH

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	331.1	331.1	331.1	331.1	331.1	331.1	331.1	331.1	331.1	331.1	331.1
2.5°	332.6	332.3	332.4	332.4	332.4	332.3	332.4	332.3	332.3	332.1	331.9
5°	333.6	333.3	333.3	333.3	333.2	333.0	333.0	332.9	332.6	332.5	332.0
7.5°	334.2	333.9	333.9	333.8	333.7	333.6	333.4	333.0	332.6	332.4	331.8
10°	334.5	334.2	334.2	333.9	333.7	333.6	333.3	332.7	332.3	331.7	330.7
12.5°	334.3	333.9	333.8	333.6	333.0	332.7	332.5	331.9	330.9	330.1	328.9
15°	333.6	333.3	333.0	332.6	332.0	331.7	331.4	330.3	329.2	328.0	326.5
17.5°	332.0	331.7	331.1	330.6	329.7	329.3	328.7	327.4	325.8	324.0	321.8
20°	326.5	326.3	325.8	324.9	323.4	323.0	322.0	320.5	318.2	316.1	313.8
22.5°	317.5	317.1	316.3	315.6	314.3	313.4	312.6	310.3	308.0	305.7	303.4
25°	305.9	305.6	304.5	303.4	302.2	300.7	299.9	298.1	295.7	292.8	289.6
27.5°	291.0	289.7	289.4	288.2	286.3	285.8	284.6	282.4	280.1	277.5	274.8
30°	271.6	271.6	270.9	270.3	268.5	268.1	266.8	264.4	263.1	259.5	257.5
32.5°	251.2	250.9	250.2	249.8	248.9	247.9	246.6	245.4	242.6	240.8	238.0
35°	230.0	228.4	228.8	227.9	227.3	226.3	226.1	224.7	222.2	221.3	218.6
37.5°	205.9	205.3	206.1	205.1	204.4	204.5	203.5	202.6	201.6	199.8	199.3
40°	184.1	184.7	184.6	183.5	184.0	183.4	182.3	181.5	181.0	179.8	179.5
42.5°	164.7	163.9	163.6	163.6	163.7	163.7	163.3	162.7	162.7	161.5	160.3
45°	146.4	146.4	146.1	146.8	145.7	145.7	145.3	145.2	144.7	144.4	143.0
47.5°	130.5	130.4	130.3	130.2	130.0	130.0	129.2	128.6	128.5	127.8	126.9
50°	115.6	116.4	116.1	115.5	115.3	115.4	114.9	114.4	114.3	113.1	113.2
52.5°	103.1	103.0	103.3	102.9	102.3	102.4	101.9	101.3	100.9	100.3	99.7
55°	90.9	91.5	91.2	90.9	90.6	90.4	90.0	89.4	89.3	87.9	87.8
57.5°	80.5	80.4	80.1	79.4	79.3	79.0	79.0	78.5	77.7	76.9	76.3
60°	70.4	70.4	70.0	69.9	69.4	69.3	69.2	68.6	67.8	67.2	66.1
62.5°	60.7	61.0	60.7	60.4	60.0	59.4	59.2	58.8	58.1	57.4	56.6
65°	52.2	52.0	51.9	51.4	51.3	50.8	50.7	49.9	49.2	48.7	47.6
67.5°	44.1	43.7	43.7	43.5	43.2	42.8	42.5	41.8	40.9	40.4	39.3
70°	36.3	36.1	36.1	36.1	35.4	35.0	34.9	34.5	33.2	32.7	31.7
72.5°	29.2	29.1	28.9	28.6	28.1	28.1	27.6	26.9	26.2	25.6	24.9
75°	22.3	22.5	22.3	21.8	21.7	21.4	21.0	20.4	19.8	18.9	18.1
77.5°	16.3	16.1	15.8	15.8	15.5	15.0	14.9	14.4	13.6	13.1	12.3
80°	10.7	10.6	10.4	10.0	9.9	9.8	9.7	9.2	8.4	8.0	7.3
82.5°	5.8	5.7	5.7	5.6	5.2	5.2	5.1	4.5	4.2	3.9	3.6
85°	2.0	2.0	2.0	1.9	1.9	1.9	1.8	1.7	1.5	1.4	1.2
87.5°	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1
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: P843258

CATALOG NUMBER: LD4C08DE010B40 EU4C08B40 4LBLWWH

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	331.1	331.1	331.1	331.1	331.1	331.1	331.1	331.1	331.1	331.1	331.1
2.5°	331.7	331.4	331.3	331.1	330.9	330.8	330.7	330.5	330.3	330.2	330.0
5°	331.7	331.1	330.8	330.5	330.2	330.0	329.6	329.2	328.8	328.4	328.1
7.5°	331.1	330.3	329.9	329.0	328.8	328.4	327.7	327.1	326.5	325.8	324.9
10°	329.9	328.9	328.0	326.9	326.5	325.9	324.9	324.0	323.0	321.9	321.1
12.5°	327.8	326.4	325.1	323.7	323.0	322.4	320.9	319.6	318.3	317.2	315.7
15°	324.7	323.1	321.4	319.5	318.7	317.8	315.8	314.3	312.2	310.7	309.3
17.5°	319.8	317.2	315.2	312.7	311.5	310.6	308.8	306.4	304.5	302.8	301.1
20°	311.3	308.8	306.0	303.3	302.0	300.8	298.3	295.7	293.8	292.0	290.1
22.5°	300.1	297.0	295.0	291.6	290.5	289.1	286.0	283.8	281.5	279.7	278.1
25°	286.4	283.8	280.9	277.8	276.5	274.8	272.2	269.9	268.4	266.4	264.3
27.5°	270.8	268.5	265.1	262.5	261.0	259.8	257.4	255.2	253.2	251.8	249.7
30°	254.1	251.6	248.5	245.8	245.1	243.5	241.4	239.7	237.5	236.6	235.7
32.5°	236.0	233.1	230.8	229.0	227.5	226.1	225.1	222.3	222.0	219.7	219.5
35°	216.1	214.8	212.7	211.1	209.8	209.0	207.1	205.8	204.4	204.0	203.2
37.5°	197.4	195.9	193.9	192.4	191.5	191.4	190.1	189.2	188.3	187.7	186.7
40°	177.8	177.2	175.4	175.1	173.7	173.6	172.8	172.0	171.0	171.0	171.1
42.5°	159.7	159.0	158.2	157.3	156.5	156.5	156.1	155.9	155.6	155.3	155.9
45°	142.8	141.7	141.2	140.3	140.8	139.9	139.7	139.7	139.3	139.2	140.1
47.5°	126.9	125.9	125.3	125.0	125.0	125.2	124.1	124.4	124.3	124.6	124.9
50°	112.5	111.6	110.8	110.8	110.9	110.4	109.9	110.3	109.9	110.2	111.1
52.5°	99.2	98.1	97.8	97.8	97.1	96.9	97.2	96.7	96.8	96.9	97.4
55°	86.8	86.2	85.6	84.9	85.0	84.8	84.3	84.2	84.4	84.6	85.2
57.5°	75.7	74.9	74.0	73.7	73.5	73.5	72.9	72.8	73.0	72.3	72.3
60°	65.3	64.7	63.6	63.1	63.1	62.5	62.0	62.3	61.7	61.6	61.7
62.5°	55.4	55.0	54.3	53.5	53.2	53.0	52.4	52.0	51.8	51.3	50.6
65°	46.9	46.0	45.1	44.5	44.2	43.6	43.2	42.6	41.9	41.7	40.9
67.5°	38.3	37.4	36.6	36.2	35.7	35.4	34.8	34.2	33.2	32.3	31.3
70°	30.8	29.7	29.2	28.1	27.9	27.4	26.4	25.8	25.0	23.8	23.0
72.5°	23.6	22.8	22.0	21.2	20.5	20.1	19.4	18.3	17.3	16.7	15.8
75°	16.9	16.6	15.5	14.5	14.3	13.7	12.9	12.3	11.4	10.5	9.7
77.5°	11.4	10.7	10.0	9.2	8.9	8.4	7.9	7.3	6.8	6.1	5.6
80°	6.8	6.1	5.7	5.1	4.9	4.5	4.2	3.7	3.3	3.1	3.0
82.5°	3.3	2.7	2.6	2.3	2.1	2.0	1.8	1.7	1.4	1.4	1.4
85°	1.2	0.8	0.8	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6
87.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
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: P843258

CATALOG NUMBER: LD4C08DE010B40 EU4C08B40 4LBLWWH

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	331.1	331.1	331.1	331.1	331.1	331.1	331.1	331.1	331.1	331.1	331.1
2.5°	329.9	329.7	329.6	329.5	329.5	329.3	329.3	329.2	329.2	329.0	329.0
5°	327.5	327.1	326.9	326.7	326.7	326.3	326.1	325.8	325.6	325.6	325.3
7.5°	324.4	323.8	323.3	323.0	322.8	322.2	321.7	321.7	321.2	320.9	320.7
10°	320.1	319.3	318.5	318.1	317.6	317.2	316.5	316.2	315.8	315.2	315.1
12.5°	314.4	313.8	312.6	312.1	311.9	311.2	310.1	309.6	309.5	308.9	308.6
15°	308.0	306.5	305.6	304.9	304.9	303.6	303.1	302.4	301.8	301.4	301.3
17.5°	299.5	298.1	297.1	296.2	295.9	295.0	294.1	293.9	293.3	293.5	292.9
20°	288.7	287.6	286.8	285.7	285.7	285.0	284.7	284.1	283.9	283.7	283.9
22.5°	277.1	275.7	274.5	274.4	274.4	273.4	273.3	273.2	272.7	273.1	272.9
25°	263.5	262.5	261.7	261.6	261.6	261.0	260.6	260.8	261.2	261.0	261.4
27.5°	249.4	248.3	248.1	247.9	247.7	247.6	247.8	247.8	248.2	248.8	249.2
30°	234.1	233.8	233.4	233.3	233.1	233.7	233.9	234.4	234.2	235.0	235.4
32.5°	218.8	218.3	218.2	218.4	218.8	218.6	219.5	219.7	219.9	220.8	221.3
35°	203.4	203.3	203.0	203.0	203.2	204.1	204.1	205.1	205.5	205.8	206.8
37.5°	186.8	187.3	187.6	187.9	188.0	188.5	188.7	189.6	190.2	190.7	191.1
40°	171.7	171.4	172.6	171.8	172.1	173.2	173.7	173.6	174.3	175.1	175.6
42.5°	155.5	155.9	156.1	156.4	157.1	157.2	157.8	158.6	159.0	159.8	160.1
45°	139.8	139.9	140.5	141.0	141.4	142.4	142.7	143.0	143.7	143.7	144.2
47.5°	125.0	125.5	125.5	126.3	126.9	126.8	127.8	128.0	127.9	128.5	128.7
50°	110.9	111.7	111.6	112.1	112.3	112.4	113.2	113.5	113.0	113.6	113.7
52.5°	97.4	97.8	98.4	98.5	98.1	98.8	98.6	99.1	99.0	99.4	99.0
55°	85.0	84.9	84.9	85.2	84.9	85.2	85.5	84.9	84.6	85.0	84.9
57.5°	72.8	72.8	72.4	72.9	72.4	72.1	71.9	71.6	71.2	71.2	71.1
60°	61.1	60.9	60.4	60.3	60.3	59.7	59.3	58.8	58.8	58.3	57.9
62.5°	50.3	49.7	49.3	49.3	49.1	48.4	47.3	46.4	46.2	45.5	45.4
65°	40.1	39.4	39.1	38.3	37.7	37.4	36.3	35.4	35.0	34.3	34.4
67.5°	30.8	29.8	28.7	28.1	27.7	26.9	26.4	25.8	25.5	25.5	25.5
70°	22.2	21.3	20.1	19.8	19.5	18.7	18.3	18.2	18.6	18.5	18.6
72.5°	14.9	14.0	13.5	13.2	13.0	12.6	12.9	13.0	12.7	12.9	13.0
75°	9.0	8.8	8.4	8.2	8.2	8.4	8.2	8.2	8.4	8.4	8.6
77.5°	5.2	5.0	5.0	4.9	5.1	5.0	5.0	5.0	5.1	5.1	5.1
80°	2.7	2.7	2.7	2.7	3.0	2.7	3.0	3.0	3.0	3.0	3.0
82.5°	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.4
85°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
87.5°	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1
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: P843258

CATALOG NUMBER: LD4C08DE010B40 EU4C08B40 4LBLWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	331.1	331.1	331.1	331.1	331.1	331.1	331.1	331.1
2.5°	328.8	328.8	328.8	328.6	328.7	328.7	328.6	328.6
5°	325.2	325.1	324.9	324.9	324.6	324.9	324.7	324.9
7.5°	320.5	320.5	320.0	320.0	319.9	319.8	319.6	319.8
10°	314.6	314.6	314.4	314.3	314.4	313.9	313.9	313.8
12.5°	308.3	308.1	307.8	308.0	307.8	307.5	307.3	307.5
15°	300.9	300.6	300.7	300.3	300.3	300.2	300.4	300.4
17.5°	292.8	292.5	292.2	292.4	292.1	292.2	292.1	292.0
20°	283.8	283.7	283.7	283.1	283.2	283.1	283.2	283.7
22.5°	273.3	273.2	273.3	272.9	273.2	273.2	273.5	273.5
25°	261.9	261.7	262.0	262.1	262.2	262.6	262.2	262.3
27.5°	249.1	249.5	249.8	250.0	250.4	250.1	249.8	250.2
30°	236.3	236.3	236.1	236.6	237.0	237.3	236.7	236.7
32.5°	221.5	222.1	222.1	222.2	222.6	222.6	222.6	223.2
35°	207.3	207.7	207.8	207.3	207.6	207.4	208.4	208.4
37.5°	191.5	191.5	191.6	192.6	192.6	192.2	192.4	192.4
40°	176.5	176.6	176.1	176.4	177.0	176.7	177.0	177.3
42.5°	160.1	161.0	160.4	160.8	160.5	160.8	160.9	160.9
45°	144.4	144.7	144.7	144.8	145.0	145.3	144.6	144.4
47.5°	129.1	129.2	129.7	129.0	129.8	129.0	129.8	128.9
50°	113.7	114.2	113.8	114.1	113.7	113.7	113.6	113.5
52.5°	99.1	99.0	99.0	98.8	98.8	99.1	98.8	99.2
55°	84.4	84.6	84.3	84.2	84.1	84.4	84.1	83.8
57.5°	70.5	70.8	70.3	70.5	69.7	70.0	70.1	70.3
60°	57.6	57.3	57.3	56.8	56.8	57.2	56.7	56.7
62.5°	44.7	44.9	44.5	45.1	45.1	45.6	45.4	45.6
65°	34.3	34.4	34.5	34.5	34.5	35.3	35.0	34.7
67.5°	25.8	26.0	26.1	26.0	26.3	26.1	26.1	26.2
70°	18.7	18.8	18.9	18.9	18.8	18.9	18.9	18.9
72.5°	13.0	13.1	13.0	13.1	13.2	13.1	13.1	13.2
75°	8.6	8.6	8.4	8.4	8.4	8.4	8.6	8.4
77.5°	5.0	5.1	5.0	5.1	5.1	5.1	5.1	5.1
80°	3.0	3.0	3.0	2.7	3.0	3.0	3.0	2.7
82.5°	1.5	1.5	1.4	1.4	1.5	1.5	1.5	1.5
85°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
87.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-50001EG





— 0°-180° - - 45°-225° - - - - 90°-270°













(END OF REPORT)