

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: P843411

Luminaire Tested: **LD4C15DE010B2750 EU4C15B50 4LBDWWLI**

Issue Date: 5/7/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P843411  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2107-320-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LD4C15DE010B2750 EU4C15B50 4LBLDWWLI  
Description: 4in Downlight with BioUp LEDs  
Light Source: -  
Ballast/Driver:

**Summary**

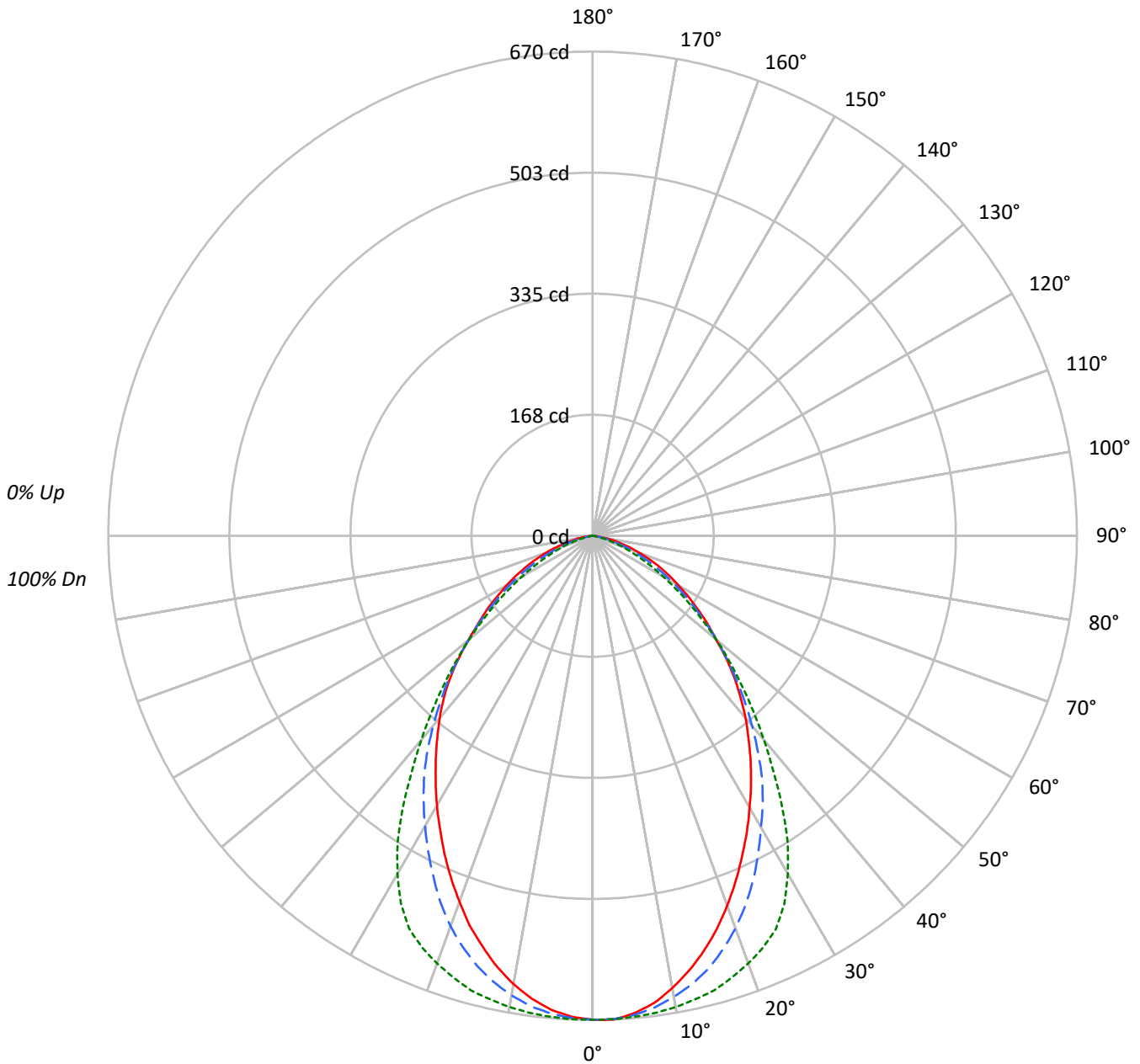
Lumens per Lamp: N/A  
Luminaire Lumens: 1230.0 lumens  
Efficiency: N/A  
Efficacy: 72.4 lumens/watt  
Spacing Criteria (0/90/45): 1 / 1.19 / 1.15  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 17  
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: P843411

CATALOG NUMBER: LD4C15DE010B2750 EU4C15B50 4LBLDWWLI

### Luminous Intensity Polar Plot





TEST NUMBER: P843411

CATALOG NUMBER: LD4C15DE010B2750 EU4C15B50 4LBLDWWLI

**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	93	92	90	88																			
2	103	96	90	85	100	94	89	84	91	86	83	87	84	81	85	82	79	77																			
3	95	86	79	74	93	84	78	73	82	76	72	79	74	70	77	73	69	67																			
4	88	78	70	64	86	76	69	64	74	68	63	72	66	62	70	65	61	59																			
5	82	70	62	57	80	69	62	56	67	61	56	65	60	55	64	59	55	53																			
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47																			
7	71	59	51	45	69	58	50	45	56	50	45	55	49	45	54	48	44	42																			
8	66	54	46	41	65	53	46	41	52	45	41	51	45	40	50	44	40	38																			
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35																			
10	59	46	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34	32																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	82275	82275	82275
5°	81788	82404	81183
10°	79290	82609	78604
15°	75651	82799	74837
20°	71187	82326	70402
25°	66313	81346	65757
30°	61609	76604	61113
35°	57141	68524	56721
40°	52811	59098	52779
45°	48126	50437	48526
50°	42506	42659	42755
55°	38083	34870	38233
60°	33662	27691	33736
65°	29651	21134	29331
70°	24569	15122	24569
75°	19129	8686	18417
80°	12452	2122	11886
85°	4652	705	3524



TEST NUMBER: P843411

CATALOG NUMBER: LD4C15DE010B2750 EU4C15B50 4LBLDWWLI

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	62.9	5.1
10°-20°	173.9	14.1
20°-30°	243.2	19.8
30°-40°	256.5	20.9
40°-50°	218.2	17.7
50°-60°	154.0	12.5
60°-70°	87.3	7.1
70°-80°	31.1	2.5
80°-90°	3.0	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°	480.0	39.0
0°-40°	736.5	59.9
0°-60°	1108.6	90.1
0°-90°	1230.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1230.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	670	670	670	670	670	
5°	663	666	668	664	658	62
15°	595	620	651	616	588	167
25°	489	526	600	521	485	225
35°	381	408	457	406	378	238
45°	277	281	290	282	279	213
55°	178	172	163	172	178	160
65°	102	87	73	88	101	101
75°	40	28	18	27	39	44
85°	3	1	0	1	2	6
90°	0	0	0	0	0	



TEST NUMBER: P843411

CATALOG NUMBER: LD4C15DE010B2750 EU4C15B50 4LBLDWWLI

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	669.7	669.7	669.7	669.7	669.7	669.7	669.7	669.7	669.7	669.7	669.7
2.5°	670.2	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.3	669.3
5°	663.2	662.7	662.5	662.5	662.5	662.5	662.7	663.8	664.2	664.9	665.5
7.5°	652.2	651.2	651.7	651.7	652.2	652.7	653.5	654.5	655.9	657.0	658.3
10°	635.6	634.7	636.0	636.5	638.0	638.7	640.0	641.5	644.4	645.9	647.9
12.5°	616.4	615.9	616.4	618.4	619.9	620.9	622.4	625.7	628.7	631.9	635.4
15°	594.8	593.6	594.4	596.8	599.4	601.2	602.3	606.7	610.7	615.6	619.9
17.5°	570.8	569.0	571.0	573.0	576.3	577.8	579.6	584.3	589.8	595.3	600.1
20°	544.5	544.0	545.2	548.1	551.2	553.2	554.7	560.0	564.8	572.3	577.8
22.5°	517.2	517.7	518.7	521.7	524.0	526.7	529.0	533.8	539.3	546.3	553.2
25°	489.2	489.9	491.7	493.7	497.4	498.9	501.6	506.7	511.5	517.9	525.7
27.5°	462.1	462.4	464.4	465.4	468.8	472.1	473.4	478.7	484.2	489.2	495.9
30°	434.3	435.0	436.3	439.0	442.6	443.8	445.4	450.1	454.4	460.6	465.9
32.5°	407.7	407.3	408.8	410.3	414.3	416.5	417.2	422.7	426.5	432.8	437.9
35°	381.0	379.7	381.9	383.5	387.0	389.0	389.9	394.2	397.8	403.0	408.5
37.5°	354.2	355.2	356.2	357.4	359.2	359.7	362.7	363.7	368.2	372.2	375.2
40°	329.3	328.8	328.4	329.7	331.9	332.8	333.2	335.9	336.9	340.9	343.1
42.5°	302.8	303.0	302.8	303.0	304.3	304.3	305.0	306.8	307.6	308.8	311.6
45°	277.0	277.0	276.3	276.5	276.8	276.5	276.8	277.5	279.0	279.0	281.0
47.5°	250.2	249.7	250.8	249.9	249.5	249.2	249.9	249.2	250.8	250.8	251.2
50°	222.4	222.4	223.7	223.4	223.9	222.9	223.2	223.2	223.4	223.2	224.2
52.5°	200.8	200.4	199.9	198.6	199.2	198.1	198.1	198.4	197.6	197.4	196.1
55°	177.8	178.3	177.6	177.0	177.0	176.1	175.8	174.3	173.3	172.6	171.9
57.5°	157.1	157.6	157.3	156.0	154.5	154.8	154.3	152.8	150.5	149.0	147.8
60°	137.0	137.5	137.0	135.8	135.3	134.2	134.0	132.0	130.2	128.2	126.7
62.5°	119.0	119.0	118.8	117.0	115.7	115.9	114.8	113.2	110.9	108.2	106.0
65°	102.0	101.6	100.5	99.7	98.7	97.4	96.7	94.4	92.6	90.4	87.4
67.5°	84.9	84.2	83.7	82.9	80.7	80.4	79.4	77.4	74.9	73.2	70.6
70°	68.4	68.1	67.2	67.2	65.4	64.6	63.1	61.3	59.1	56.6	54.6
72.5°	54.2	53.6	52.6	51.6	50.1	49.6	48.3	46.5	44.6	42.1	39.6
75°	40.3	39.9	39.6	38.3	37.0	35.9	35.3	33.5	31.5	29.8	27.5
77.5°	28.3	27.8	27.1	26.3	25.6	24.7	24.0	22.5	20.8	19.2	17.2
80°	17.6	17.0	16.5	16.3	15.5	15.2	14.3	13.5	12.1	11.0	9.7
82.5°	9.0	9.0	8.6	8.2	7.7	7.5	7.3	6.6	5.7	5.0	4.2
85°	3.3	3.3	3.0	2.7	2.7	2.5	2.5	2.2	1.8	1.8	1.3
87.5°	0.2	0.2	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	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: P843411

CATALOG NUMBER: LD4C15DE010B2750 EU4C15B50 4LBLDWWLI

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	669.7	669.7	669.7	669.7	669.7	669.7	669.7	669.7	669.7	669.7	669.7
2.5°	669.5	669.3	669.5	669.5	669.7	669.7	669.7	669.5	669.7	669.5	669.5
5°	665.5	666.2	666.7	667.3	667.5	667.8	667.8	668.0	668.2	668.2	668.0
7.5°	659.2	660.7	662.2	663.2	663.8	664.2	664.9	665.5	666.0	665.8	665.5
10°	651.0	653.5	655.4	657.4	658.5	659.2	660.5	661.4	662.0	662.2	661.4
12.5°	639.2	642.7	645.9	649.2	650.7	651.7	654.3	655.9	657.0	657.0	656.3
15°	624.4	629.4	634.2	638.4	640.9	642.4	646.2	648.8	650.2	651.0	649.7
17.5°	606.7	612.4	618.2	623.7	626.1	628.4	633.6	637.2	640.4	640.9	639.4
20°	583.8	591.1	597.6	604.3	607.1	610.7	616.6	622.4	627.4	629.7	625.4
22.5°	558.3	566.3	572.3	580.5	584.3	588.0	595.9	603.2	611.8	616.6	609.1
25°	531.8	538.5	545.7	553.8	559.1	563.1	572.1	581.4	593.1	600.1	589.6
27.5°	503.2	509.1	517.9	526.7	530.7	535.7	546.5	556.5	567.8	574.1	566.3
30°	473.6	481.1	489.4	497.4	503.2	508.0	516.8	525.2	534.7	540.0	534.2
32.5°	444.3	451.6	458.6	467.4	470.6	474.9	482.6	489.9	497.2	502.0	495.2
35°	413.5	420.0	426.5	432.6	434.1	439.0	445.4	449.6	453.1	456.9	452.3
37.5°	380.0	385.0	388.3	394.7	397.2	398.0	403.0	406.0	409.7	410.5	410.3
40°	345.8	350.4	353.1	357.2	359.2	359.2	362.7	365.4	368.2	368.5	368.2
42.5°	314.1	316.3	318.6	321.1	320.6	323.6	325.1	326.4	328.4	328.4	328.8
45°	282.1	283.8	285.8	286.3	288.3	288.3	289.6	290.0	291.1	290.3	289.3
47.5°	252.2	253.0	253.2	255.5	255.9	254.3	255.7	255.9	255.7	255.7	255.2
50°	223.9	224.4	224.2	223.4	223.7	224.4	223.7	222.6	223.2	223.2	223.7
52.5°	196.4	195.3	194.8	194.8	193.9	193.9	192.6	192.1	191.9	190.9	192.1
55°	171.0	169.5	167.3	166.8	166.0	165.8	164.4	163.1	162.6	162.8	162.6
57.5°	146.8	144.5	143.0	142.5	141.7	140.2	138.6	137.3	137.0	136.5	136.5
60°	124.7	122.3	119.9	117.7	117.9	117.0	115.2	114.4	113.7	112.7	113.5
62.5°	104.7	102.0	99.4	97.2	95.7	95.0	93.7	92.4	91.7	91.0	91.9
65°	84.9	82.6	79.9	77.6	76.9	76.1	74.9	72.9	72.7	72.7	73.2
67.5°	67.2	64.6	62.1	60.6	59.7	58.6	58.1	57.1	56.4	55.8	56.1
70°	51.6	49.1	47.1	45.6	44.8	44.6	42.8	42.6	42.3	42.1	41.8
72.5°	37.5	35.5	33.8	32.8	31.8	31.1	30.6	29.8	29.5	29.5	29.5
75°	25.8	24.3	22.3	21.0	20.5	19.8	19.0	18.5	18.1	18.3	18.3
77.5°	15.5	14.1	12.8	11.7	11.5	10.8	10.0	9.5	8.8	8.8	9.0
80°	8.6	7.3	6.2	5.5	5.0	4.8	4.0	3.8	3.3	3.0	3.0
82.5°	3.8	3.0	2.5	2.2	2.0	1.8	1.5	1.3	1.3	1.0	1.3
85°	1.3	1.0	0.7	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
87.5°	0.2	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: P843411

CATALOG NUMBER: LD4C15DE010B2750 EU4C15B50 4LBLDWWLI

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	669.7	669.7	669.7	669.7	669.7	669.7	669.7	669.7	669.7	669.7	669.7
2.5°	669.3	669.3	669.0	669.0	669.0	668.5	668.5	668.2	668.0	667.8	667.3
5°	667.5	667.3	666.7	666.5	666.2	665.5	664.7	664.2	663.5	662.5	662.0
7.5°	664.9	664.2	663.2	662.7	662.0	660.2	659.0	657.7	656.5	654.7	652.7
10°	660.7	659.2	657.7	656.7	655.4	653.2	650.7	648.8	645.9	643.5	640.7
12.5°	654.7	653.0	649.9	648.4	647.0	643.7	640.4	636.2	632.5	628.9	625.7
15°	647.2	644.0	640.4	638.4	636.2	630.9	625.9	621.4	616.4	612.2	606.9
17.5°	636.2	631.4	626.4	624.1	621.1	615.1	609.1	602.9	597.1	591.9	585.3
20°	619.7	614.4	607.9	604.3	601.9	593.9	588.0	581.1	575.0	568.6	561.3
22.5°	600.3	593.1	585.8	580.9	578.1	570.1	562.3	556.0	549.5	542.0	536.7
25°	578.5	569.5	560.8	555.8	551.6	543.0	535.5	529.0	521.0	514.4	509.1
27.5°	554.0	543.7	533.5	528.5	524.5	515.2	507.2	500.5	492.6	486.9	481.4
30°	524.7	515.5	505.7	501.6	496.9	487.4	478.2	472.1	463.6	457.6	451.6
32.5°	488.2	482.2	474.3	468.8	466.4	457.6	449.8	442.6	435.3	430.6	424.5
35°	448.1	442.8	436.3	433.3	430.0	424.5	418.3	412.1	406.2	401.8	396.2
37.5°	407.5	402.2	398.2	395.0	393.0	387.9	384.2	379.5	375.5	371.2	368.2
40°	365.4	363.9	359.7	358.1	357.7	352.2	348.9	345.1	342.7	340.1	338.3
42.5°	328.1	325.6	322.4	322.6	321.1	318.1	315.8	313.4	311.6	310.3	308.6
45°	291.3	289.3	287.8	289.1	286.5	285.6	283.8	283.6	282.3	280.1	279.3
47.5°	256.3	255.9	256.3	255.5	255.0	254.5	254.7	253.5	252.2	251.5	250.4
50°	224.2	224.4	225.0	225.7	223.9	224.6	224.4	224.2	224.2	223.4	223.9
52.5°	193.1	193.3	193.9	194.6	194.8	194.8	195.7	196.1	197.1	198.4	198.4
55°	163.8	165.5	166.6	167.8	167.1	168.6	169.3	171.5	172.3	172.3	173.3
57.5°	137.7	139.5	140.2	141.7	142.3	143.5	145.5	146.8	148.5	150.1	151.6
60°	114.0	114.8	116.8	119.0	118.5	121.5	123.0	125.0	127.2	128.2	130.2
62.5°	92.6	93.7	95.2	95.9	97.7	99.2	102.7	104.7	106.7	109.3	111.2
65°	73.6	74.7	76.1	77.6	78.4	80.7	82.4	85.9	87.7	90.4	92.6
67.5°	56.4	57.9	59.1	60.1	60.6	62.8	65.6	67.2	70.3	73.2	74.9
70°	42.1	43.4	44.8	44.6	45.6	47.4	49.4	51.6	54.2	56.6	58.6
72.5°	29.3	30.6	31.5	31.8	32.8	34.1	35.5	37.3	39.3	41.8	44.6
75°	18.5	18.8	19.8	20.3	20.8	22.3	23.6	25.3	27.1	29.1	30.8
77.5°	9.3	10.0	10.5	11.0	11.3	12.5	13.7	15.2	16.8	18.8	20.5
80°	3.5	3.8	4.5	4.8	5.3	6.0	7.0	7.7	9.0	10.5	11.5
82.5°	1.3	1.5	1.8	1.8	2.0	2.5	2.7	3.5	4.2	4.8	5.3
85°	0.5	0.5	0.5	0.5	0.5	0.7	0.7	1.0	1.3	1.5	1.5
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: P843411

CATALOG NUMBER: LD4C15DE010B2750 EU4C15B50 4LBLDWWLI

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	669.7	669.7	669.7	669.7	669.7	669.7	669.7	669.7
2.5°	666.9	666.9	666.7	666.5	666.5	666.5	666.2	666.2
5°	661.0	660.2	660.0	659.4	659.2	659.0	658.3	658.3
7.5°	651.2	650.2	649.5	648.8	647.7	647.0	647.0	645.9
10°	638.2	636.2	635.2	634.2	632.9	631.4	630.9	630.1
12.5°	622.4	618.4	617.4	615.6	613.6	612.7	610.9	610.9
15°	602.9	598.6	596.4	595.3	592.8	591.1	590.4	588.4
17.5°	580.1	576.8	573.3	571.9	569.0	566.8	565.8	565.5
20°	557.1	551.8	549.5	547.2	544.0	542.0	540.5	538.5
22.5°	530.5	525.7	522.5	521.0	518.2	514.8	512.2	512.2
25°	502.5	498.1	496.5	493.2	489.9	488.6	485.7	485.1
27.5°	475.6	471.4	467.9	466.1	462.4	460.6	458.1	457.1
30°	447.8	442.8	440.3	440.1	435.5	433.8	431.8	430.8
32.5°	420.0	415.8	413.2	411.7	409.7	406.8	405.0	404.0
35°	392.5	389.7	387.5	385.7	382.4	381.0	379.5	378.2
37.5°	363.7	361.2	360.1	358.6	357.2	354.4	353.9	352.9
40°	335.9	332.6	332.6	331.6	330.1	329.9	329.1	329.1
42.5°	306.8	305.3	305.0	305.3	304.3	303.9	303.0	304.8
45°	278.1	278.8	277.5	277.7	277.3	278.3	278.3	279.3
47.5°	251.5	250.4	251.0	251.5	252.2	252.2	251.9	251.7
50°	223.2	224.2	225.2	223.9	224.4	224.6	223.4	223.7
52.5°	198.8	199.2	199.9	199.2	199.9	199.6	200.1	199.2
55°	175.4	175.4	176.3	176.6	176.8	177.6	177.8	178.5
57.5°	152.5	153.8	155.0	154.8	155.8	156.7	156.0	156.7
60°	132.7	133.8	135.0	135.5	136.2	136.8	136.8	137.3
62.5°	112.7	114.8	115.7	116.8	116.8	117.7	118.8	119.0
65°	94.7	96.9	97.7	98.5	98.9	99.9	101.2	100.9
67.5°	77.6	79.1	80.2	80.7	82.2	82.6	83.7	84.6
70°	60.8	62.8	63.7	64.6	65.9	66.8	67.9	68.4
72.5°	46.5	48.1	48.5	49.6	50.9	51.8	52.4	53.1
75°	32.6	35.1	35.3	36.1	37.0	38.3	39.0	38.8
77.5°	21.6	23.3	23.6	24.5	25.6	26.5	26.8	27.1
80°	12.8	13.7	14.1	14.5	15.2	15.8	16.3	16.8
82.5°	6.0	6.6	7.0	7.0	7.5	8.0	8.0	8.2
85°	2.0	2.0	2.2	2.2	2.5	2.5	2.7	2.5
87.5°	0.2	0.2	0.0	0.2	0.2	0.2	0.2	0.2
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)