

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: FAIL-SAFE

Report Number: P735585

Luminaire Tested: **4APN6-24-B2750-W2D-3500K**

Issue Date: 1/5/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P735585  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P709119)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 1/5/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 4APN6-24-B2750-W2D-3500K  
Description: 4FT 2400 AMBIENT LUMEN OUTPUT APN WITH BIO UP LEDS AT 3500K CCT

Light Source: -  
Ballast/Driver: -

**Summary**

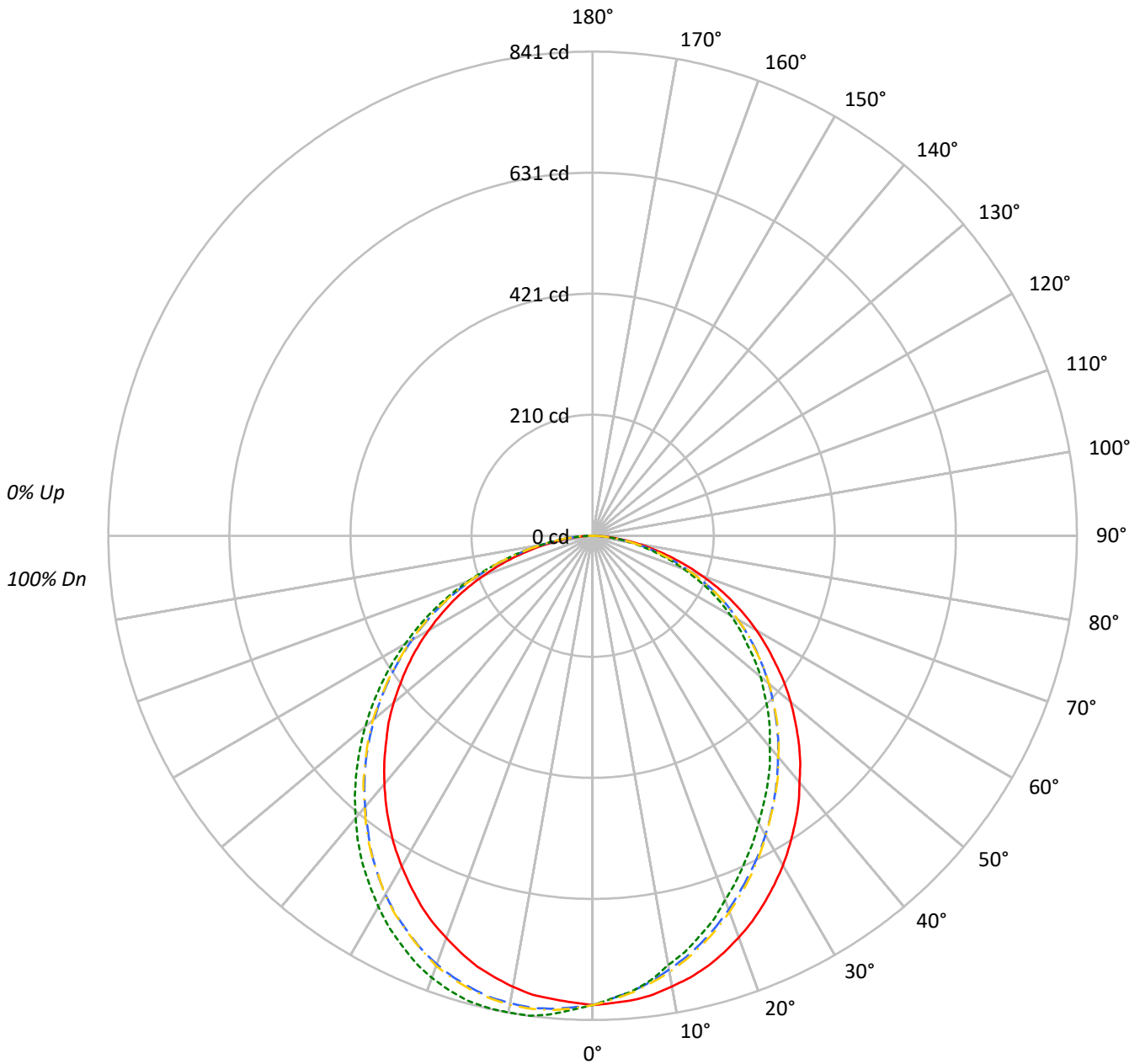
Lumens per Lamp: N/A  
Luminaire Lumens: 2186.0 lumens  
Efficiency: N/A  
Efficacy: 91.8 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.33  
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 23.8  
Input Voltage (V): NR  
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: P735585

CATALOG NUMBER: 4APN6-24-B2750-W2D-3500K

### Luminous Intensity Polar Plot





TEST NUMBER: P735585

CATALOG NUMBER: 4APN6-24-B2750-W2D-3500K

**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	109	104	100	96	106	102	98	95	98	94	92	94	91	89	90	88	86	84																			
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	76	72	70																			
3	90	80	72	65	88	78	71	65	75	69	64	73	67	62	70	65	61	59																			
4	83	71	62	55	81	70	61	55	67	60	54	65	59	54	63	57	53	51																			
5	76	63	54	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44																			
6	70	57	48	42	68	56	48	42	54	47	41	53	46	41	51	45	41	38																			
7	65	52	43	37	64	51	43	37	49	42	37	48	41	36	47	41	36	34																			
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	30																			
9	57	43	35	30	55	43	35	30	42	35	30	41	34	29	40	34	29	27																			
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25																			

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

	0°	90°	180°	270°
0°	7520	7520	7520	7520
5°	7498	7353	7480	7729
10°	7446	7092	7455	7878
15°	7389	6870	7399	7987
20°	7288	6609	7297	8021
25°	7171	6365	7199	7988
30°	7043	6140	7062	7926
35°	6895	5960	6926	7841
40°	6729	5763	6775	7707
45°	6605	5618	6617	7566
50°	6446	5466	6471	7398
55°	6244	5265	6288	7193
60°	6056	5104	6075	6942
65°	5816	4890	5816	6643
70°	5422	4527	5398	6191
75°	4930	4110	4862	5557
80°	4261	3528	4118	4755
85°	3324	2636	3123	3906



TEST NUMBER: P735585

CATALOG NUMBER: 4APN6-24-B2750-W2D-3500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.0	3.5
10°-20°	218.6	10.0
20°-30°	324.9	14.9
30°-40°	383.0	17.5
40°-50°	390.0	17.8
50°-60°	347.4	15.9
60°-70°	261.7	12.0
70°-80°	145.6	6.7
80°-90°	37.8	1.7
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°	620.5	28.4
0°-40°	1003.5	45.9
0°-60°	1740.9	79.6
0°-90°	2186.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2186.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	815	815	815	815	815	
5°	810	794	808	834	810	77
15°	774	719	775	836	774	218
25°	704	625	707	785	704	325
35°	612	529	615	696	612	383
45°	506	431	507	580	506	390
55°	388	327	391	447	388	348
65°	266	224	266	304	266	263
75°	138	115	136	156	138	147
85°	31	25	30	37	31	38
90°	0	0	0	0	0	



TEST NUMBER: P735585

CATALOG NUMBER: 4APN6-24-B2750-W2D-3500K

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°
0°	815.1	815.1	815.1	815.1	815.1	815.1	815.1	815.1	815.1	815.1	815.1
2.5°	812.3	812.3	813.2	809.6	805.0	803.1	802.2	801.2	803.1	804.0	803.1
5°	809.6	807.7	805.8	801.2	795.7	792.0	790.1	789.3	791.1	793.9	791.1
7.5°	804.0	800.4	796.6	790.1	783.8	778.2	775.4	773.6	775.4	778.2	776.3
10°	794.8	790.1	784.7	777.3	768.1	761.6	758.9	756.1	757.0	757.0	757.0
12.5°	785.5	779.2	772.7	763.5	753.3	745.9	741.3	737.7	739.4	740.4	740.4
15°	773.6	765.3	756.1	745.9	735.8	727.5	722.0	718.2	719.2	719.2	720.1
17.5°	758.9	749.6	740.4	728.5	716.4	707.2	700.8	696.2	697.9	698.9	699.8
20°	742.3	732.1	722.0	709.0	696.2	686.0	679.5	674.0	673.1	673.1	674.0
22.5°	724.7	713.6	701.7	687.8	674.0	662.9	656.4	651.0	650.1	650.1	651.0
25°	704.4	692.4	680.5	666.6	651.8	640.9	632.5	627.0	626.0	625.2	627.0
27.5°	683.2	671.3	659.3	645.5	629.8	618.7	610.3	604.8	603.0	602.1	604.0
30°	661.1	647.2	634.4	619.6	605.7	594.7	586.4	579.9	578.2	576.3	578.2
32.5°	637.1	623.3	609.5	594.7	580.9	569.8	561.5	555.1	553.3	552.3	554.1
35°	612.2	598.4	585.5	570.7	556.9	545.9	537.6	532.1	530.2	529.2	530.2
37.5°	587.3	573.6	560.6	545.9	532.1	521.0	512.6	507.1	506.2	505.3	506.2
40°	558.7	546.8	533.8	520.0	506.2	495.2	488.7	482.2	480.4	478.5	481.4
42.5°	533.8	521.9	509.0	496.1	482.2	471.1	463.8	458.3	456.4	455.4	456.4
45°	506.2	493.3	480.4	468.4	455.4	445.3	438.0	432.4	431.5	430.6	431.5
47.5°	476.7	465.7	454.6	442.6	429.6	419.6	413.1	407.6	405.7	403.9	405.7
50°	449.1	438.0	426.9	415.8	403.9	394.6	388.2	382.7	381.7	380.8	381.7
52.5°	419.6	408.5	398.4	387.3	377.1	367.8	361.5	356.9	355.9	355.0	355.9
55°	388.2	378.9	369.7	360.5	350.4	342.1	336.6	331.0	329.2	327.3	329.2
57.5°	358.6	350.4	341.2	332.0	322.7	315.4	309.8	305.2	304.3	303.3	304.3
60°	328.2	320.9	312.5	304.3	295.1	287.7	283.1	279.4	277.5	276.6	277.5
62.5°	297.8	290.5	284.0	275.6	267.4	261.8	257.2	253.6	251.7	250.8	251.7
65°	266.4	260.1	253.6	246.2	239.7	234.1	229.5	225.9	224.9	224.0	224.0
67.5°	234.1	228.7	223.2	216.7	209.3	203.7	199.1	196.4	195.5	194.5	195.5
70°	201.0	196.4	190.9	185.3	179.8	175.2	172.5	169.7	168.7	167.8	167.8
72.5°	169.7	166.0	161.4	156.8	152.1	147.5	144.8	142.9	142.0	141.1	141.1
75°	138.3	134.6	131.8	128.2	123.6	120.7	118.0	116.1	115.3	115.3	115.3
77.5°	108.8	106.0	103.3	99.6	96.8	94.1	92.2	91.3	90.3	90.3	90.3
80°	80.2	78.4	76.5	74.6	71.9	69.2	68.3	67.3	66.4	66.4	66.4
82.5°	54.4	53.5	51.6	49.8	48.0	47.0	46.1	45.2	45.2	45.2	45.2
85°	31.4	30.4	29.5	28.5	27.7	27.7	26.8	25.8	24.9	24.9	24.9
87.5°	13.0	13.0	13.0	12.0	11.1	11.1	11.1	11.1	11.1	11.1	11.1
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: P735585

CATALOG NUMBER: 4APN6-24-B2750-W2D-3500K

**CANDELA DISTRIBUTION (continued):**

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	815.1	815.1	815.1	815.1	815.1	815.1	815.1	815.1	815.1	815.1	815.1
2.5°	801.2	803.1	805.0	807.7	810.5	813.2	812.3	811.4	815.1	819.7	820.7
5°	789.3	791.1	793.9	798.5	803.1	806.8	807.7	807.7	815.1	821.5	823.4
7.5°	774.6	777.3	780.9	785.5	792.0	797.6	800.4	804.0	811.4	819.7	823.4
10°	756.1	760.7	766.2	772.7	779.2	785.5	791.1	795.7	805.0	814.2	819.7
12.5°	739.4	744.0	749.6	757.0	765.3	773.6	779.2	785.5	796.6	807.7	814.2
15°	721.0	725.6	732.1	739.4	748.6	757.9	766.2	774.6	785.5	797.6	805.0
17.5°	700.8	705.4	711.8	721.0	731.2	741.3	750.5	759.7	772.7	785.5	793.9
20°	675.9	682.3	690.6	699.8	711.8	723.8	733.1	743.2	757.0	770.8	780.0
22.5°	651.8	658.3	667.5	678.6	691.6	704.4	715.5	726.6	741.3	755.1	765.3
25°	628.8	636.2	645.5	656.4	668.5	681.4	694.3	707.2	722.0	736.7	746.9
27.5°	605.7	612.2	621.4	632.5	646.3	659.3	672.1	685.1	700.8	716.4	727.5
30°	579.9	587.3	595.6	606.7	621.4	636.2	649.1	662.9	678.6	694.3	705.4
32.5°	556.0	562.5	570.7	581.8	596.5	611.3	625.2	639.9	654.7	670.3	681.4
35°	532.1	538.4	546.8	557.9	572.6	587.3	601.1	614.9	629.8	644.5	655.6
37.5°	508.0	514.5	522.8	533.8	547.7	562.5	575.3	589.1	604.0	618.7	628.8
40°	483.1	489.6	496.1	507.1	521.0	535.7	548.6	562.5	577.2	591.9	602.1
42.5°	458.3	464.7	473.0	484.1	496.9	509.9	522.8	535.7	549.5	563.4	573.6
45°	433.4	438.9	447.2	457.3	470.3	482.2	495.2	507.1	521.0	533.8	544.0
47.5°	407.6	413.1	419.6	429.6	442.6	455.4	468.4	480.4	492.3	505.3	514.5
50°	382.7	388.2	395.5	404.7	416.8	428.8	439.9	450.8	462.9	474.9	483.1
52.5°	356.9	362.4	368.8	378.1	388.2	399.2	409.3	420.4	431.5	442.6	450.8
55°	331.0	334.7	340.2	348.5	359.6	370.7	380.8	390.9	401.1	410.3	418.6
57.5°	305.2	309.8	316.3	323.6	332.8	342.1	351.3	360.5	369.7	378.9	386.3
60°	279.4	283.1	287.7	294.1	303.3	311.6	320.9	329.2	337.4	345.8	352.3
62.5°	252.6	256.3	260.9	267.4	274.8	282.1	290.5	297.8	305.2	312.5	319.0
65°	224.9	228.7	233.3	238.8	245.2	251.7	259.1	266.4	272.0	277.5	284.0
67.5°	196.4	200.1	204.7	209.3	214.8	221.3	227.8	234.1	239.7	245.2	249.8
70°	168.7	171.5	176.1	179.8	184.4	189.0	194.5	200.1	203.7	208.3	213.9
72.5°	142.0	144.8	148.4	152.1	154.9	158.6	164.1	168.7	173.3	178.9	181.7
75°	116.1	118.0	120.7	123.6	126.3	129.1	132.8	136.4	140.2	142.9	146.7
77.5°	90.3	92.2	95.0	96.8	98.7	100.6	103.3	106.0	108.8	110.7	114.4
80°	66.4	68.3	70.0	71.9	73.8	75.6	76.5	77.5	81.1	83.9	85.7
82.5°	45.2	46.1	47.0	48.8	49.8	50.7	51.6	51.6	53.5	55.3	58.1
85°	25.8	26.8	27.7	27.7	27.7	27.7	28.5	29.5	30.4	32.3	34.1
87.5°	10.1	10.1	11.1	11.1	11.1	11.1	11.1	11.1	12.0	13.8	14.7
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: P735585

CATALOG NUMBER: 4APN6-24-B2750-W2D-3500K

**CANDELA DISTRIBUTION (continued):**

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	815.1	815.1	815.1	815.1	815.1	815.1	815.1	815.1	815.1	815.1	815.1
2.5°	819.7	820.7	822.4	823.4	824.3	824.3	825.3	826.1	824.3	822.4	821.5
5°	824.3	825.3	828.0	830.8	832.6	834.5	833.5	832.6	830.8	828.0	826.1
7.5°	825.3	828.0	830.8	834.5	837.2	840.9	839.1	837.2	833.5	829.9	827.0
10°	822.4	826.1	830.8	835.4	838.1	840.9	839.1	837.2	833.5	828.9	825.3
12.5°	818.8	823.4	828.9	833.5	836.2	840.0	837.2	834.5	829.9	825.3	820.7
15°	810.5	816.0	822.4	828.0	832.6	836.2	833.5	831.6	826.1	819.7	813.2
17.5°	800.4	807.7	814.2	820.7	824.3	828.0	826.1	824.3	817.8	810.5	803.1
20°	788.4	795.7	802.2	808.6	813.2	816.9	814.2	811.4	805.0	798.5	791.1
22.5°	773.6	780.9	788.4	794.8	799.4	803.1	799.4	794.8	788.4	781.9	774.6
25°	755.1	763.5	771.7	778.2	780.9	784.7	780.9	777.3	770.8	764.3	756.1
27.5°	736.7	745.0	753.3	759.7	762.5	766.2	762.5	758.9	752.4	745.9	737.7
30°	715.5	723.8	732.1	738.5	741.3	744.0	740.4	736.7	731.2	724.7	716.4
32.5°	691.6	699.8	706.3	712.8	716.4	720.1	716.4	713.6	707.2	698.9	690.6
35°	665.7	674.0	682.3	688.7	692.4	696.2	691.6	687.0	681.4	674.9	667.5
37.5°	637.1	646.3	655.6	662.9	665.7	669.4	665.7	661.1	655.6	649.1	640.9
40°	610.3	618.7	627.0	634.4	637.1	639.9	636.2	632.5	626.0	619.6	611.3
42.5°	582.8	591.0	598.4	604.8	607.6	611.3	607.6	603.0	598.4	592.9	585.5
45°	553.3	561.5	568.0	574.4	577.2	579.9	576.3	571.7	567.1	562.5	555.1
47.5°	522.8	530.2	536.7	543.0	544.9	547.7	544.0	541.3	536.7	532.1	525.6
50°	491.5	498.8	505.3	510.8	512.6	515.4	511.8	508.0	504.4	500.7	495.2
52.5°	459.2	465.7	472.1	477.6	479.5	481.4	477.6	473.9	470.3	466.5	461.0
55°	426.0	432.4	438.9	443.5	445.3	447.2	443.5	440.7	437.0	434.3	428.8
57.5°	392.8	399.2	404.7	409.3	411.2	413.1	409.3	405.7	403.0	400.1	395.5
60°	358.6	365.1	369.7	373.4	375.3	376.2	372.5	369.7	367.8	366.1	361.5
62.5°	325.5	330.1	334.7	337.4	339.3	340.2	337.4	335.6	333.8	332.0	328.2
65°	290.5	295.9	299.7	302.4	303.3	304.3	301.5	299.7	297.8	295.9	293.2
67.5°	255.4	260.1	262.8	265.5	266.4	266.4	266.4	265.5	263.7	260.9	258.2
70°	220.3	224.0	226.8	228.7	229.5	229.5	227.8	225.9	225.9	224.9	223.2
72.5°	184.4	187.2	189.0	190.9	190.9	190.9	190.9	191.8	190.9	189.0	186.3
75°	150.3	153.0	154.9	155.9	155.9	155.9	155.9	156.8	155.9	154.9	153.0
77.5°	118.0	119.9	120.7	121.7	121.7	121.7	122.6	123.6	122.6	121.7	120.7
80°	87.6	88.5	89.5	90.3	89.5	89.5	90.3	92.2	91.3	90.3	89.5
82.5°	59.9	60.8	61.8	61.8	62.7	63.7	63.7	63.7	63.7	62.7	61.8
85°	36.0	36.9	36.9	36.9	36.9	36.9	37.8	38.7	38.7	37.8	37.8
87.5°	16.6	17.6	16.6	15.7	14.7	14.7	16.6	18.4	18.4	17.6	17.6
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: P735585

CATALOG NUMBER: 4APN6-24-B2750-W2D-3500K

**CANDELA DISTRIBUTION (continued):**

	330°	340°	350°	360°
0°	815.1	815.1	815.1	815.1
2.5°	822.4	821.5	816.9	812.3
5°	825.3	822.4	816.0	809.6
7.5°	825.3	821.5	812.3	804.0
10°	820.7	815.1	805.0	794.8
12.5°	815.1	808.6	796.6	785.5
15°	806.8	799.4	786.5	773.6
17.5°	794.8	785.5	772.7	758.9
20°	782.8	772.7	757.0	742.3
22.5°	766.2	757.0	740.4	724.7
25°	747.8	737.7	721.0	704.4
27.5°	728.5	716.4	699.8	683.2
30°	706.3	694.3	677.7	661.1
32.5°	682.3	671.3	654.7	637.1
35°	658.3	646.3	629.8	612.2
37.5°	631.6	620.5	604.0	587.3
40°	603.0	591.9	575.3	558.7
42.5°	576.3	566.1	549.5	533.8
45°	546.8	536.7	521.0	506.2
47.5°	516.4	506.2	491.5	476.7
50°	486.8	476.7	462.9	449.1
52.5°	453.7	445.3	432.4	419.6
55°	421.4	413.1	400.1	388.2
57.5°	389.1	381.7	369.7	358.6
60°	355.0	347.6	338.4	328.2
62.5°	322.7	316.3	307.0	297.8
65°	288.6	283.1	274.8	266.4
67.5°	253.6	249.0	241.6	234.1
70°	218.6	213.0	207.5	201.0
72.5°	183.5	180.7	175.2	169.7
75°	150.3	147.5	142.9	138.3
77.5°	119.0	116.1	112.5	108.8
80°	87.6	85.7	83.0	80.2
82.5°	60.8	59.1	57.2	54.4
85°	36.9	35.0	33.2	31.4
87.5°	16.6	15.7	13.8	13.0
90°	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-50001EG





— 0°-180°    - - 45°-225°    - - - - 90°-270°    - · - · 135°-315°















(END OF REPORT)