

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: P735581

Luminaire Tested: **4APN6-19-B2750-W2D-CP250-4000K**

Issue Date: 1/5/2024



Test Information

Test Method: LM-79-08
Report Number: P735581
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: 4APN6-19-B2750-W2D-CP250-4000K
Description: 4FT 1900 AMBIENT LUMEN OUTPUT APN WITH BIO UP LEDS AT 4000K CCT, AND CP250 LENS

Light Source: -
Ballast/Driver: -

Summary

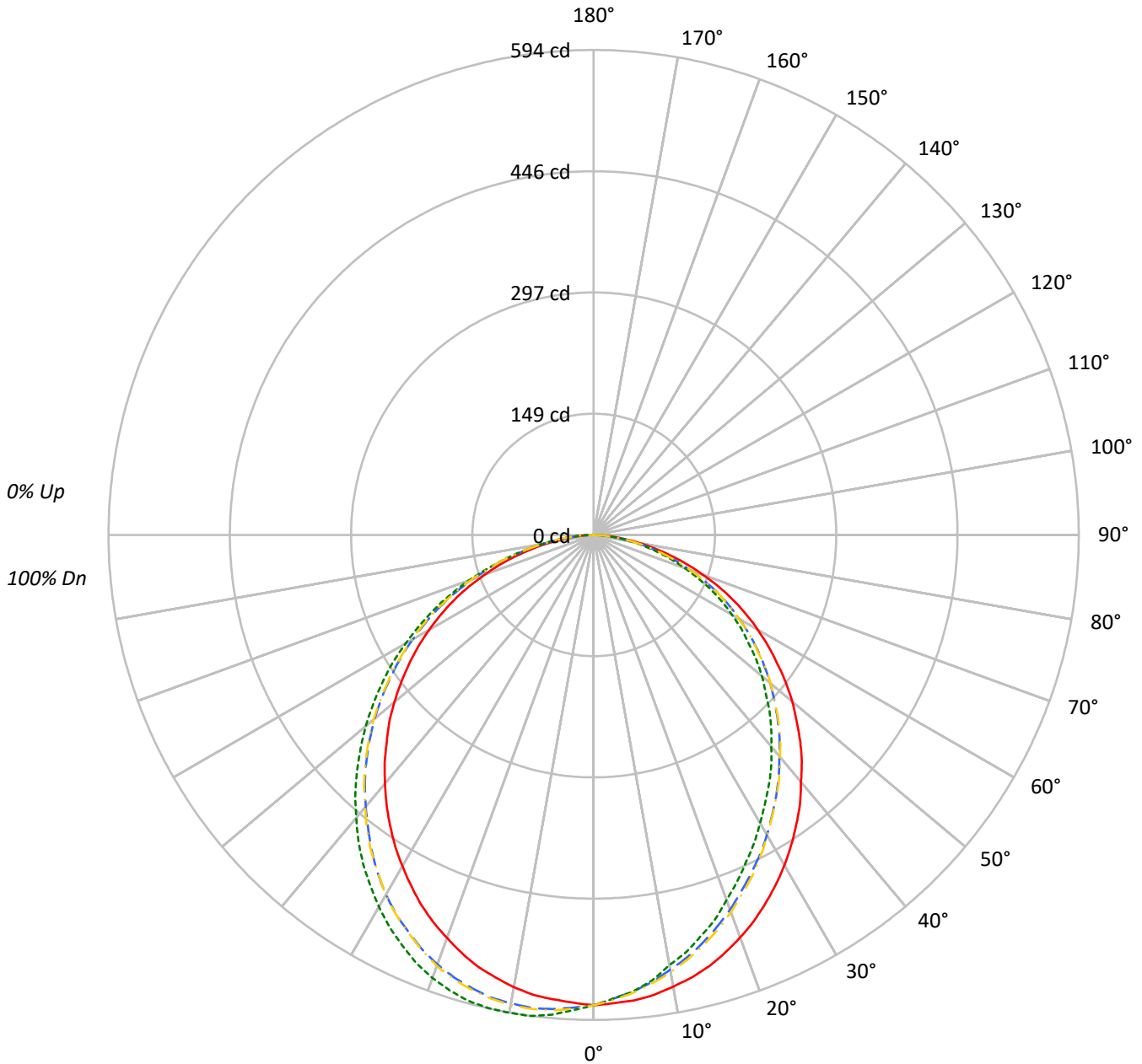
Lumens per Lamp: N/A
Luminaire Lumens: 1545.0 lumens
Efficiency: N/A
Efficacy: 81.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.33
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19
Input Voltage (V): NR
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

TEST NUMBER: P735581

CATALOG NUMBER: 4APN6-19-B2750-W2D-CP250-4000K

Luminous Intensity Polar Plot





TEST NUMBER: P735581

CATALOG NUMBER: 4APN6-19-B2750-W2D-CP250-4000K

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°	5315	5315	5315	5315
5°	5299	5197	5287	5462
10°	5262	5012	5269	5568
15°	5222	4855	5229	5645
20°	5151	4671	5157	5669
25°	5069	4498	5088	5646
30°	4977	4339	4991	5603
35°	4874	4212	4895	5541
40°	4756	4073	4787	5446
45°	4667	3972	4676	5348
50°	4556	3863	4573	5229
55°	4412	3722	4444	5085
60°	4281	3607	4294	4906
65°	4111	3456	4111	4696
70°	3833	3199	3814	4375
75°	3486	2905	3436	3928
80°	3013	2492	2912	3358
85°	2350	1863	2212	2763



TEST NUMBER: P735581

CATALOG NUMBER: 4APN6-19-B2750-W2D-CP250-4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.4	3.5
10°-20°	154.5	10.0
20°-30°	229.7	14.9
30°-40°	270.7	17.5
40°-50°	275.6	17.8
50°-60°	245.5	15.9
60°-70°	185.0	12.0
70°-80°	102.9	6.7
80°-90°	26.7	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°	438.6	28.4
0°-40°	709.3	45.9
0°-60°	1230.4	79.6
0°-90°	1545.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1545.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	576	576	576	576	576	
5°	572	561	571	590	572	54
15°	547	508	547	591	547	154
25°	498	442	500	555	498	229
35°	433	374	435	492	433	271
45°	358	304	358	410	358	276
55°	274	231	276	316	274	246
65°	188	158	188	215	188	186
75°	98	82	96	110	98	104
85°	22	18	21	26	22	27
90°	0	0	0	0	0	



TEST NUMBER: P735581

CATALOG NUMBER: 4APN6-19-B2750-W2D-CP250-4000K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°
0°	576.1	576.1	576.1	576.1	576.1	576.1	576.1	576.1	576.1	576.1	576.1
2.5°	574.1	574.1	574.7	572.2	568.9	567.6	567.0	566.3	567.6	568.2	567.6
5°	572.2	570.9	569.5	566.3	562.4	559.8	558.4	557.8	559.1	561.1	559.1
7.5°	568.2	565.7	563.0	558.4	553.9	550.0	548.1	546.7	548.1	550.0	548.7
10°	561.7	558.4	554.6	549.4	542.9	538.3	536.3	534.4	535.0	535.0	535.0
12.5°	555.2	550.7	546.1	539.6	532.4	527.2	523.9	521.4	522.6	523.3	523.3
15°	546.7	540.9	534.4	527.2	520.0	514.1	510.3	507.6	508.3	508.3	509.0
17.5°	536.3	529.8	523.3	514.8	506.3	499.8	495.3	492.0	493.3	494.0	494.6
20°	524.6	517.4	510.3	501.1	492.0	484.8	480.2	476.4	475.7	475.7	476.4
22.5°	512.2	504.4	495.9	486.1	476.4	468.5	464.0	460.1	459.5	459.5	460.1
25°	497.9	489.4	480.9	471.2	460.7	452.9	447.0	443.2	442.5	441.8	443.2
27.5°	482.9	474.4	466.0	456.2	445.1	437.3	431.4	427.5	426.2	425.5	426.9
30°	467.2	457.4	448.4	437.9	428.1	420.4	414.5	409.9	408.6	407.3	408.6
32.5°	450.3	440.5	430.7	420.4	410.6	402.7	396.8	392.3	391.0	390.3	391.6
35°	432.7	422.9	413.8	403.4	393.6	385.8	379.9	376.0	374.7	374.0	374.7
37.5°	415.1	405.4	396.2	385.8	376.0	368.2	362.3	358.4	357.7	357.1	357.7
40°	394.9	386.4	377.3	367.5	357.7	350.0	345.4	340.8	339.5	338.2	340.2
42.5°	377.3	368.8	359.8	350.6	340.8	333.0	327.8	323.9	322.6	321.9	322.6
45°	357.7	348.7	339.5	331.1	321.9	314.8	309.6	305.6	305.0	304.4	305.0
47.5°	336.9	329.1	321.3	312.8	303.7	296.5	291.9	288.1	286.8	285.4	286.8
50°	317.4	309.6	301.7	293.9	285.4	278.9	274.3	270.5	269.8	269.1	269.8
52.5°	296.5	288.7	281.6	273.7	266.5	260.0	255.5	252.2	251.5	250.9	251.5
55°	274.3	267.8	261.3	254.8	247.6	241.8	237.9	233.9	232.7	231.4	232.7
57.5°	253.5	247.6	241.1	234.6	228.1	222.9	218.9	215.7	215.1	214.4	215.1
60°	232.0	226.8	220.9	215.1	208.5	203.3	200.1	197.5	196.1	195.5	196.1
62.5°	210.5	205.3	200.7	194.8	189.0	185.0	181.8	179.2	177.9	177.3	177.9
65°	188.3	183.8	179.2	174.0	169.4	165.5	162.2	159.7	159.0	158.3	158.3
67.5°	165.5	161.6	157.7	153.2	148.0	144.0	140.7	138.8	138.2	137.5	138.2
70°	142.1	138.8	134.9	131.0	127.1	123.8	121.9	119.9	119.2	118.6	118.6
72.5°	119.9	117.3	114.0	110.8	107.5	104.3	102.3	101.0	100.4	99.7	99.7
75°	97.8	95.1	93.2	90.6	87.4	85.3	83.4	82.1	81.5	81.5	81.5
77.5°	76.9	74.9	73.0	70.4	68.4	66.5	65.2	64.5	63.9	63.9	63.9
80°	56.7	55.4	54.1	52.8	50.8	48.9	48.3	47.6	46.9	46.9	46.9
82.5°	38.5	37.8	36.5	35.2	33.9	33.2	32.6	32.0	32.0	32.0	32.0
85°	22.2	21.5	20.9	20.2	19.6	19.6	18.9	18.2	17.6	17.6	17.6
87.5°	9.2	9.2	9.2	8.5	7.8	7.8	7.8	7.8	7.8	7.8	7.8
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: P735581

CATALOG NUMBER: 4APN6-19-B2750-W2D-CP250-4000K

CANDELA DISTRIBUTION (continued):

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	576.1	576.1	576.1	576.1	576.1	576.1	576.1	576.1	576.1	576.1	576.1
2.5°	566.3	567.6	568.9	570.9	572.8	574.7	574.1	573.5	576.1	579.3	580.0
5°	557.8	559.1	561.1	564.3	567.6	570.2	570.9	570.9	576.1	580.6	582.0
7.5°	547.4	549.4	551.9	555.2	559.8	563.7	565.7	568.2	573.5	579.3	582.0
10°	534.4	537.7	541.5	546.1	550.7	555.2	559.1	562.4	568.9	575.4	579.3
12.5°	522.6	525.9	529.8	535.0	540.9	546.7	550.7	555.2	563.0	570.9	575.4
15°	509.6	512.8	517.4	522.6	529.1	535.6	541.5	547.4	555.2	563.7	568.9
17.5°	495.3	498.6	503.1	509.6	516.8	523.9	530.4	537.0	546.1	555.2	561.1
20°	477.7	482.3	488.1	494.6	503.1	511.6	518.1	525.2	535.0	544.8	551.3
22.5°	460.7	465.3	471.8	479.6	488.8	497.9	505.7	513.5	523.9	533.7	540.9
25°	444.4	449.7	456.2	464.0	472.5	481.6	490.7	499.8	510.3	520.7	527.9
27.5°	428.1	432.7	439.2	447.0	456.8	466.0	475.0	484.2	495.3	506.3	514.1
30°	409.9	415.1	421.0	428.8	439.2	449.7	458.8	468.5	479.6	490.7	498.6
32.5°	393.0	397.5	403.4	411.2	421.6	432.1	441.8	452.2	462.7	473.7	481.6
35°	376.0	380.5	386.4	394.3	404.7	415.1	424.8	434.6	445.1	455.5	463.3
37.5°	359.1	363.6	369.5	377.3	387.1	397.5	406.6	416.4	426.9	437.3	444.4
40°	341.4	346.0	350.6	358.4	368.2	378.6	387.8	397.5	407.9	418.3	425.5
42.5°	323.9	328.4	334.3	342.1	351.2	360.4	369.5	378.6	388.4	398.2	405.4
45°	306.3	310.2	316.1	323.2	332.4	340.8	350.0	358.4	368.2	377.3	384.5
47.5°	288.1	291.9	296.5	303.7	312.8	321.9	331.1	339.5	348.0	357.1	363.6
50°	270.5	274.3	279.5	286.1	294.6	303.0	310.9	318.6	327.2	335.6	341.4
52.5°	252.2	256.1	260.7	267.2	274.3	282.2	289.3	297.1	305.0	312.8	318.6
55°	233.9	236.6	240.4	246.3	254.2	262.0	269.1	276.3	283.5	290.0	295.8
57.5°	215.7	218.9	223.5	228.7	235.2	241.8	248.3	254.8	261.3	267.8	273.0
60°	197.5	200.1	203.3	207.8	214.4	220.3	226.8	232.7	238.5	244.4	249.0
62.5°	178.5	181.2	184.4	189.0	194.2	199.4	205.3	210.5	215.7	220.9	225.5
65°	159.0	161.6	164.9	168.7	173.3	177.9	183.1	188.3	192.3	196.1	200.7
67.5°	138.8	141.4	144.7	148.0	151.8	156.4	161.0	165.5	169.4	173.3	176.6
70°	119.2	121.2	124.4	127.1	130.3	133.6	137.5	141.4	144.0	147.3	151.2
72.5°	100.4	102.3	104.9	107.5	109.5	112.1	116.0	119.2	122.5	126.5	128.4
75°	82.1	83.4	85.3	87.4	89.3	91.2	93.9	96.4	99.1	101.0	103.7
77.5°	63.9	65.2	67.1	68.4	69.7	71.1	73.0	74.9	76.9	78.2	80.8
80°	46.9	48.3	49.5	50.8	52.1	53.5	54.1	54.8	57.3	59.3	60.6
82.5°	32.0	32.6	33.2	34.5	35.2	35.8	36.5	36.5	37.8	39.1	41.0
85°	18.2	18.9	19.6	19.6	19.6	19.6	20.2	20.9	21.5	22.8	24.1
87.5°	7.1	7.1	7.8	7.8	7.8	7.8	7.8	7.8	8.5	9.8	10.4
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: P735581

CATALOG NUMBER: 4APN6-19-B2750-W2D-CP250-4000K

CANDELA DISTRIBUTION (continued):

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	576.1	576.1	576.1	576.1	576.1	576.1	576.1	576.1	576.1	576.1	576.1
2.5°	579.3	580.0	581.3	582.0	582.6	582.6	583.3	583.9	582.6	581.3	580.6
5°	582.6	583.3	585.2	587.2	588.5	589.8	589.1	588.5	587.2	585.2	583.9
7.5°	583.3	585.2	587.2	589.8	591.7	594.3	593.1	591.7	589.1	586.5	584.5
10°	581.3	583.9	587.2	590.4	592.4	594.3	593.1	591.7	589.1	585.8	583.3
12.5°	578.7	582.0	585.8	589.1	591.0	593.7	591.7	589.8	586.5	583.3	580.0
15°	572.8	576.8	581.3	585.2	588.5	591.0	589.1	587.8	583.9	579.3	574.7
17.5°	565.7	570.9	575.4	580.0	582.6	585.2	583.9	582.6	578.0	572.8	567.6
20°	557.2	562.4	567.0	571.5	574.7	577.4	575.4	573.5	568.9	564.3	559.1
22.5°	546.7	551.9	557.2	561.7	565.0	567.6	565.0	561.7	557.2	552.6	547.4
25°	533.7	539.6	545.4	550.0	551.9	554.6	551.9	549.4	544.8	540.2	534.4
27.5°	520.7	526.6	532.4	537.0	538.9	541.5	538.9	536.3	531.8	527.2	521.4
30°	505.7	511.6	517.4	522.0	523.9	525.9	523.3	520.7	516.8	512.2	506.3
32.5°	488.8	494.6	499.2	503.8	506.3	509.0	506.3	504.4	499.8	494.0	488.1
35°	470.5	476.4	482.3	486.8	489.4	492.0	488.8	485.5	481.6	477.0	471.8
37.5°	450.3	456.8	463.3	468.5	470.5	473.1	470.5	467.2	463.3	458.8	452.9
40°	431.4	437.3	443.2	448.4	450.3	452.2	449.7	447.0	442.5	437.9	432.1
42.5°	411.9	417.7	422.9	427.5	429.4	432.1	429.4	426.2	422.9	419.0	413.8
45°	391.0	396.8	401.4	406.0	407.9	409.9	407.3	404.1	400.8	397.5	392.3
47.5°	369.5	374.7	379.3	383.8	385.1	387.1	384.5	382.6	379.3	376.0	371.5
50°	347.3	352.5	357.1	361.0	362.3	364.3	361.7	359.1	356.5	353.9	350.0
52.5°	324.5	329.1	333.7	337.6	338.9	340.2	337.6	334.9	332.4	329.7	325.9
55°	301.1	305.6	310.2	313.4	314.8	316.1	313.4	311.5	308.9	306.9	303.0
57.5°	277.6	282.2	286.1	289.3	290.6	291.9	289.3	286.8	284.8	282.8	279.5
60°	253.5	258.0	261.3	263.9	265.3	265.9	263.2	261.3	260.0	258.7	255.5
62.5°	230.0	233.3	236.6	238.5	239.8	240.4	238.5	237.2	235.9	234.6	232.0
65°	205.3	209.2	211.8	213.7	214.4	215.1	213.1	211.8	210.5	209.2	207.2
67.5°	180.5	183.8	185.7	187.7	188.3	188.3	188.3	187.7	186.4	184.4	182.5
70°	155.7	158.3	160.3	161.6	162.2	162.2	161.0	159.7	159.7	159.0	157.7
72.5°	130.3	132.3	133.6	134.9	134.9	134.9	134.9	135.5	134.9	133.6	131.7
75°	106.2	108.2	109.5	110.2	110.2	110.2	110.2	110.8	110.2	109.5	108.2
77.5°	83.4	84.7	85.3	86.0	86.0	86.0	86.7	87.4	86.7	86.0	85.3
80°	61.9	62.5	63.2	63.9	63.2	63.2	63.9	65.2	64.5	63.9	63.2
82.5°	42.4	43.0	43.7	43.7	44.3	45.0	45.0	45.0	45.0	44.3	43.7
85°	25.4	26.1	26.1	26.1	26.1	26.1	26.7	27.4	27.4	26.7	26.7
87.5°	11.7	12.4	11.7	11.1	10.4	10.4	11.7	13.0	13.0	12.4	12.4
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: P735581

CATALOG NUMBER: 4APN6-19-B2750-W2D-CP250-4000K

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	576.1	576.1	576.1	576.1
2.5°	581.3	580.6	577.4	574.1
5°	583.3	581.3	576.8	572.2
7.5°	583.3	580.6	574.1	568.2
10°	580.0	576.1	568.9	561.7
12.5°	576.1	571.5	563.0	555.2
15°	570.2	565.0	555.9	546.7
17.5°	561.7	555.2	546.1	536.3
20°	553.3	546.1	535.0	524.6
22.5°	541.5	535.0	523.3	512.2
25°	528.5	521.4	509.6	497.9
27.5°	514.8	506.3	494.6	482.9
30°	499.2	490.7	479.0	467.2
32.5°	482.3	474.4	462.7	450.3
35°	465.3	456.8	445.1	432.7
37.5°	446.4	438.6	426.9	415.1
40°	426.2	418.3	406.6	394.9
42.5°	407.3	400.1	388.4	377.3
45°	386.4	379.3	368.2	357.7
47.5°	365.0	357.7	347.3	336.9
50°	344.1	336.9	327.2	317.4
52.5°	320.7	314.8	305.6	296.5
55°	297.8	291.9	282.8	274.3
57.5°	275.0	269.8	261.3	253.5
60°	250.9	245.7	239.2	232.0
62.5°	228.1	223.5	217.0	210.5
65°	204.0	200.1	194.2	188.3
67.5°	179.2	176.0	170.8	165.5
70°	154.5	150.5	146.6	142.1
72.5°	129.7	127.7	123.8	119.9
75°	106.2	104.3	101.0	97.8
77.5°	84.1	82.1	79.5	76.9
80°	61.9	60.6	58.7	56.7
82.5°	43.0	41.7	40.4	38.5
85°	26.1	24.7	23.4	22.2
87.5°	11.7	11.1	9.8	9.2
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)