

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: P#

Luminaire Tested: **LD4C08D010 EX4C089050 4LBSQLWWH**

Issue Date: 2/18/2022

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P#
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P219529)
Test Lab: INNOVATION CENTER
Issue Date: 2/18/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C08D010 EX4C089050 4LBSQLWWH
Description: 4 INCH 800 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS AND 4LBSQLWW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

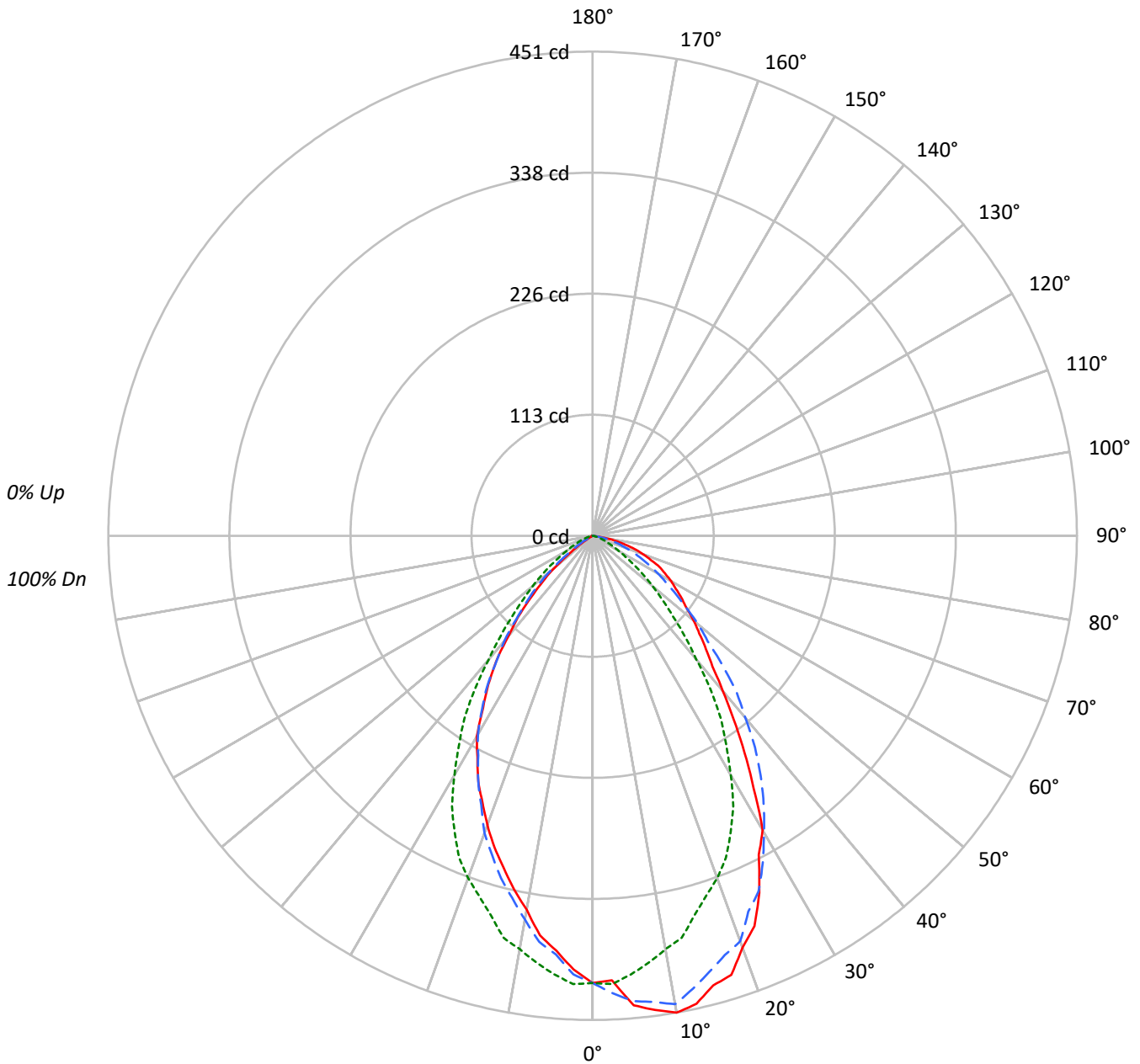
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 597.0 lumens
Efficiency: N/A
Efficacy: 60.3 lumens/watt
Spacing Criteria (0/90/45): 1.01 / 1 / 1.06
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 9.9
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

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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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90																			
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80																			
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72																			
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64																			
5	85	75	67	62	83	74	67	62	72	66	61	70	65	60	68	64	60	58																			
6	80	69	61	56	78	68	61	56	66	60	55	65	59	55	63	58	54	53																			
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48																			
8	70	59	52	47	69	58	51	46	57	51	46	56	50	46	55	50	46	44																			
9	66	55	48	43	65	54	47	43	53	47	43	52	46	42	51	46	42	41																			
10	62	51	44	40	61	51	44	40	50	44	39	49	43	39	48	43	39	38																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	40188	40188	40188
5°	42520	39712	37581
10°	44188	38309	34645
15°	43303	36561	31976
20°	41894	34819	29428
25°	39083	32376	26850
30°	35274	28656	24032
35°	29059	24536	19942
40°	23718	18931	15354
45°	20373	14382	11039
50°	18434	10943	6965
55°	16974	7890	2523
60°	16287	5403	386
65°	15731	3653	114
70°	14078	2539	141
75°	11557	1305	0
80°	7224	556	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.0	6.5
10°-20°	105.1	17.6
20°-30°	140.4	23.5
30°-40°	133.3	22.3
40°-50°	92.1	15.4
50°-60°	50.9	8.5
60°-70°	25.3	4.2
70°-80°	10.0	1.7
80°-90°	0.9	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°	284.5	47.7
0°-40°	417.8	70.0
0°-60°	560.8	93.9
0°-90°	597.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	597.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	416	416	416	416	416	
5°	439	435	410	392	388	42
15°	434	420	366	330	320	123
25°	367	366	304	252	252	167
35°	247	273	208	171	169	155
45°	149	171	105	86	81	116
55°	101	95	47	24	15	91
65°	69	50	16	0	0	67
75°	31	19	4	0	0	33
85°	0	0	0	0	0	3
90°	0	0	0	0	0	



TEST NUMBER: P#

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	416.5	416.5	416.5	416.5	416.5	416.5	416.5	416.5	416.5	416.5	416.5
2.5°	414.5	426.0	427.0	426.0	427.5	427.0	429.5	427.0	430.0	425.5	426.5
5°	439.0	434.5	444.0	439.0	439.0	438.5	437.0	436.5	438.5	432.0	435.0
7.5°	445.5	452.0	460.4	450.0	450.4	450.4	447.5	446.5	446.5	434.5	438.0
10°	451.0	446.9	451.4	447.5	451.0	450.4	452.4	445.9	450.4	443.5	443.0
12.5°	446.5	444.9	451.0	444.5	442.5	443.0	440.5	439.0	440.5	432.5	432.0
15°	433.5	435.0	444.0	437.0	436.0	435.0	432.0	427.0	431.0	420.0	420.5
17.5°	429.0	426.5	428.0	422.0	423.5	422.5	422.0	417.5	416.5	409.5	409.5
20°	408.0	413.5	413.5	409.5	409.5	409.0	402.5	406.5	402.0	400.0	402.0
22.5°	393.5	394.0	394.0	390.5	391.0	389.0	385.5	383.0	385.5	383.0	379.0
25°	367.1	368.1	374.0	367.5	366.6	368.5	365.6	364.0	363.6	357.6	365.6
27.5°	335.1	345.1	344.6	342.1	345.1	341.1	339.6	340.1	341.6	341.1	343.1
30°	316.6	318.1	319.6	317.6	318.1	316.6	316.6	317.1	321.1	319.6	319.1
32.5°	279.2	284.1	288.2	288.2	288.6	290.1	289.6	300.1	302.6	297.6	296.6
35°	246.7	250.2	253.7	254.2	260.7	261.2	261.7	264.7	271.7	273.2	272.7
37.5°	215.7	219.2	220.2	224.7	228.2	231.7	235.7	239.7	245.7	250.7	248.2
40°	188.3	189.8	192.3	194.3	201.2	201.2	203.2	211.2	217.7	221.7	221.2
42.5°	165.3	165.8	167.8	171.3	177.8	176.3	177.8	183.3	192.8	193.3	198.8
45°	149.3	148.8	150.3	150.8	154.8	156.8	157.8	161.8	169.8	170.8	171.3
47.5°	134.8	134.3	136.8	137.8	139.3	141.3	141.3	141.8	144.8	147.3	145.3
50°	122.8	122.8	122.8	123.8	126.4	125.8	126.4	128.3	129.8	128.8	128.3
52.5°	109.9	111.9	113.4	113.9	114.4	114.4	114.9	113.9	113.4	111.9	108.9
55°	100.9	102.9	102.9	102.9	102.9	104.9	102.4	102.9	102.9	98.9	94.9
57.5°	91.9	93.9	95.4	93.4	95.4	93.4	92.4	91.9	90.9	86.9	80.9
60°	84.4	85.4	84.9	84.4	85.4	83.9	82.9	80.9	79.9	74.4	70.4
62.5°	75.9	76.4	76.9	75.9	74.9	74.4	72.4	69.4	67.4	62.9	59.4
65°	68.9	67.4	66.9	66.4	65.4	63.9	62.4	58.9	57.4	53.4	49.9
67.5°	58.4	57.9	58.9	57.4	54.9	54.9	53.4	50.4	46.9	44.5	40.9
70°	49.9	49.4	48.4	46.9	46.4	44.5	44.5	40.9	40.0	35.5	32.5
72.5°	40.9	40.9	39.4	38.0	36.4	35.5	35.0	32.5	31.0	28.5	26.0
75°	31.0	31.0	30.5	29.0	28.0	27.0	26.5	24.5	23.0	20.5	19.0
77.5°	22.0	22.0	20.0	19.0	19.5	18.5	17.5	17.0	16.5	15.0	13.0
80°	13.0	12.5	11.0	11.5	11.0	11.0	10.5	10.0	9.0	8.0	7.0
82.5°	3.5	4.0	4.0	4.0	4.5	3.5	3.5	3.5	4.0	4.0	2.5
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.5
87.5°	0.5	1.0	2.0	2.0	2.0	2.0	2.0	1.5	1.5	1.5	1.0
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°	416.5	416.5	416.5	416.5	416.5	416.5	416.5	416.5	416.5	416.5	416.5
2.5°	421.5	421.0	421.5	418.0	426.0	420.0	419.0	418.0	421.5	418.0	413.0
5°	430.5	425.5	424.0	422.5	427.0	420.0	418.5	419.0	416.5	410.0	410.5
7.5°	433.5	429.0	424.5	415.0	419.0	417.5	413.5	410.5	406.5	401.0	400.0
10°	434.5	429.5	423.0	420.0	414.0	412.0	410.5	405.5	400.5	391.0	388.5
12.5°	431.5	425.5	417.5	415.0	410.5	404.0	400.5	395.5	391.0	383.5	378.0
15°	418.5	413.5	411.0	402.5	400.5	396.5	389.5	382.5	376.0	366.0	363.0
17.5°	403.5	401.5	399.0	392.5	392.0	388.0	381.5	375.5	367.1	351.6	346.6
20°	388.0	388.0	380.0	377.5	382.5	374.5	369.5	364.0	346.6	339.1	330.1
22.5°	376.5	371.1	366.6	362.6	363.0	358.1	351.1	340.1	333.6	324.6	314.1
25°	354.1	356.1	346.1	344.6	346.1	334.6	331.1	322.1	312.6	304.1	296.1
27.5°	340.1	334.6	328.1	322.6	322.6	318.1	308.1	306.1	291.6	283.7	273.7
30°	319.1	315.1	309.6	301.6	300.6	297.1	289.2	284.1	269.2	257.2	251.7
32.5°	292.6	291.1	286.6	277.7	274.7	270.7	260.7	252.2	245.2	231.7	225.2
35°	273.7	268.2	258.7	251.2	248.7	241.7	233.7	227.7	220.2	208.3	199.8
37.5°	245.2	239.7	230.7	221.7	221.7	214.7	203.8	197.8	187.3	180.3	173.3
40°	220.2	213.2	204.3	193.8	192.3	182.3	177.8	167.8	161.3	150.3	149.3
42.5°	192.3	185.8	177.8	169.8	163.8	158.8	147.3	139.8	132.8	127.3	125.8
45°	166.8	158.3	151.3	141.3	135.3	129.3	121.9	116.9	111.4	105.4	101.9
47.5°	144.8	137.8	127.8	118.9	112.9	109.9	101.4	95.9	91.4	87.4	84.9
50°	122.4	113.9	108.4	98.4	97.4	90.4	83.4	78.9	76.4	72.9	69.4
52.5°	105.4	97.4	89.9	82.4	78.4	75.9	69.4	64.9	61.4	58.9	56.9
55°	88.9	81.9	75.9	68.4	65.9	62.4	54.9	53.9	50.4	46.9	44.5
57.5°	76.4	69.9	62.9	57.9	53.4	50.9	44.9	40.9	39.0	36.0	33.5
60°	64.9	57.9	52.4	46.4	44.5	40.9	36.4	33.0	30.5	28.0	25.5
62.5°	54.4	48.4	42.5	37.4	34.5	32.5	29.0	26.0	23.5	21.5	19.5
65°	44.9	39.4	34.5	29.5	28.0	25.5	23.0	20.5	18.5	16.0	14.0
67.5°	37.0	32.0	27.0	23.5	22.0	21.0	18.0	15.5	14.0	12.5	10.5
70°	29.0	25.5	21.5	18.5	17.0	15.5	13.5	12.0	10.0	9.0	7.5
72.5°	22.5	19.5	16.0	13.5	12.5	11.5	9.5	8.0	7.0	6.0	5.0
75°	16.0	13.5	11.5	9.0	8.5	8.0	6.5	5.5	4.5	3.5	3.0
77.5°	11.0	9.0	7.0	6.0	5.5	4.5	4.0	3.0	2.5	2.0	1.5
80°	6.0	4.5	3.5	3.0	2.5	2.0	2.0	1.5	1.0	1.0	0.5
82.5°	2.0	1.5	1.0	0.5	0.5	0.5	0.5	0.5	0.5	0.0	0.5
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	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: P#

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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	416.5	416.5	416.5	416.5	416.5	416.5	416.5	416.5	416.5	416.5	416.5
2.5°	416.0	410.5	412.0	412.0	411.0	411.0	410.0	408.5	409.0	406.0	399.5
5°	411.5	404.5	403.5	404.5	400.5	399.5	397.5	400.5	391.5	395.0	391.0
7.5°	398.5	392.0	390.5	394.0	389.0	386.0	385.5	389.5	381.5	377.5	373.0
10°	384.0	381.5	377.0	374.5	373.0	373.5	369.5	364.6	363.0	362.1	358.1
12.5°	371.1	365.6	361.6	358.6	357.6	357.6	351.1	350.1	345.6	344.6	338.6
15°	355.6	349.1	346.6	342.6	339.1	341.1	333.6	331.6	330.1	323.6	324.6
17.5°	342.1	335.1	329.1	326.6	323.6	320.6	313.6	315.1	311.6	311.6	302.6
20°	324.6	317.1	312.6	307.6	307.6	303.6	298.6	299.1	294.6	290.1	282.1
22.5°	306.1	298.1	292.6	290.6	285.6	284.7	278.7	277.2	271.2	271.7	264.7
25°	286.6	278.7	271.2	271.7	267.2	265.2	261.7	254.7	252.2	249.2	247.2
27.5°	263.7	258.2	251.7	251.2	242.7	243.2	238.7	236.7	230.7	232.2	227.7
30°	242.7	234.7	228.7	227.2	223.7	222.7	215.7	212.7	213.7	209.7	207.3
32.5°	221.2	209.2	206.7	203.8	201.8	199.3	194.3	196.3	191.8	192.8	188.8
35°	192.8	187.8	181.3	181.3	179.3	177.3	173.8	175.8	171.3	169.3	165.3
37.5°	168.8	164.3	157.8	159.8	156.3	153.3	150.3	150.8	146.8	146.3	142.3
40°	142.8	140.3	135.8	135.8	133.3	133.3	131.8	130.3	127.8	124.8	120.3
42.5°	118.3	116.4	114.4	114.9	111.4	114.4	110.4	112.9	104.9	104.4	101.4
45°	100.4	95.9	96.4	94.4	92.4	93.4	89.9	90.9	86.4	85.4	82.4
47.5°	81.4	79.9	76.9	75.9	75.9	74.4	72.9	72.4	70.4	67.9	63.9
50°	66.9	61.4	60.4	58.9	57.9	57.9	55.9	52.9	53.4	50.9	46.9
52.5°	52.4	47.9	45.9	45.4	43.5	42.5	40.0	38.0	36.4	35.5	33.0
55°	40.4	36.4	34.0	34.0	31.0	31.0	27.5	26.0	24.0	22.0	20.5
57.5°	30.5	28.5	26.0	24.0	23.0	20.5	18.5	16.0	14.5	11.5	9.5
60°	23.0	21.0	18.5	17.0	16.0	13.5	11.0	9.0	5.5	4.5	4.0
62.5°	17.0	15.0	12.5	11.5	10.5	8.5	6.0	3.0	1.5	1.5	1.5
65°	12.5	10.0	8.0	7.0	6.0	4.5	2.0	1.0	0.5	0.5	0.5
67.5°	8.5	6.5	4.5	4.0	3.0	1.5	0.5	0.5	0.5	0.5	0.5
70°	5.5	4.0	2.0	1.5	1.0	0.5	0.5	0.5	0.5	0.5	0.5
72.5°	3.5	2.0	1.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	1.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.5
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: P#

CATALOG NUMBER: LD4C08D010 EX4C089050 4LBSQLWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	416.5	416.5	416.5	416.5	416.5	416.5	416.5	416.5
2.5°	406.5	403.0	405.0	400.5	402.5	406.0	403.5	404.5
5°	392.5	390.5	388.0	381.5	386.5	390.5	388.5	388.0
7.5°	377.5	370.5	374.0	372.0	371.1	375.0	370.5	375.5
10°	362.1	357.1	356.6	353.1	353.1	356.1	356.6	353.6
12.5°	339.1	336.6	336.6	336.1	335.6	338.6	339.1	337.6
15°	322.6	321.6	319.1	318.6	315.6	320.1	320.6	320.1
17.5°	302.6	303.1	300.6	300.6	302.6	304.1	300.1	304.1
20°	289.2	286.6	285.6	281.1	283.7	286.2	286.2	286.6
22.5°	269.7	265.7	267.2	264.7	263.2	266.7	266.7	268.2
25°	247.7	247.7	248.7	247.2	248.2	250.2	248.7	252.2
27.5°	226.7	228.7	228.7	226.7	227.7	233.7	236.2	232.2
30°	207.3	207.7	209.2	208.3	211.2	213.2	212.7	215.7
32.5°	185.3	187.8	188.8	187.3	188.3	192.8	190.3	189.8
35°	168.3	163.8	163.3	163.8	165.8	166.8	165.8	169.3
37.5°	143.8	142.3	140.3	140.8	142.3	144.3	145.3	147.8
40°	120.3	118.3	118.3	117.9	116.4	121.9	121.9	121.9
42.5°	99.9	99.4	96.9	96.9	98.9	100.4	99.4	102.9
45°	81.9	79.9	78.4	78.4	79.9	79.9	81.4	80.9
47.5°	64.4	62.4	62.9	61.4	62.9	64.9	62.4	62.9
50°	48.4	48.4	47.4	48.4	47.9	48.4	47.4	46.4
52.5°	33.0	37.4	38.0	36.0	31.5	27.5	25.0	27.0
55°	19.0	17.0	17.0	16.5	15.5	15.0	13.5	15.0
57.5°	9.5	8.5	8.5	8.5	8.0	7.5	6.5	6.5
60°	4.0	3.5	3.5	3.0	2.5	2.0	1.5	2.0
62.5°	1.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0
65°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
67.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
70°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	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



Report Generated By 670246072 / DESKTOP-50001EG





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













(END OF REPORT)