

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: P835261

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-1LO-20-120-EDD-90**

Issue Date: 5/16/2024

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

**Test Information**

Test Method: LM-79-08
Report Number: P835261
Test Lab: INNOVATION CENTER(G2)
Issue Date: 5/16/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: ORLG-24-2-INS-ASY2-LD4-1LO-20-120-EDD-90
Description: 2FT x 2FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 2000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

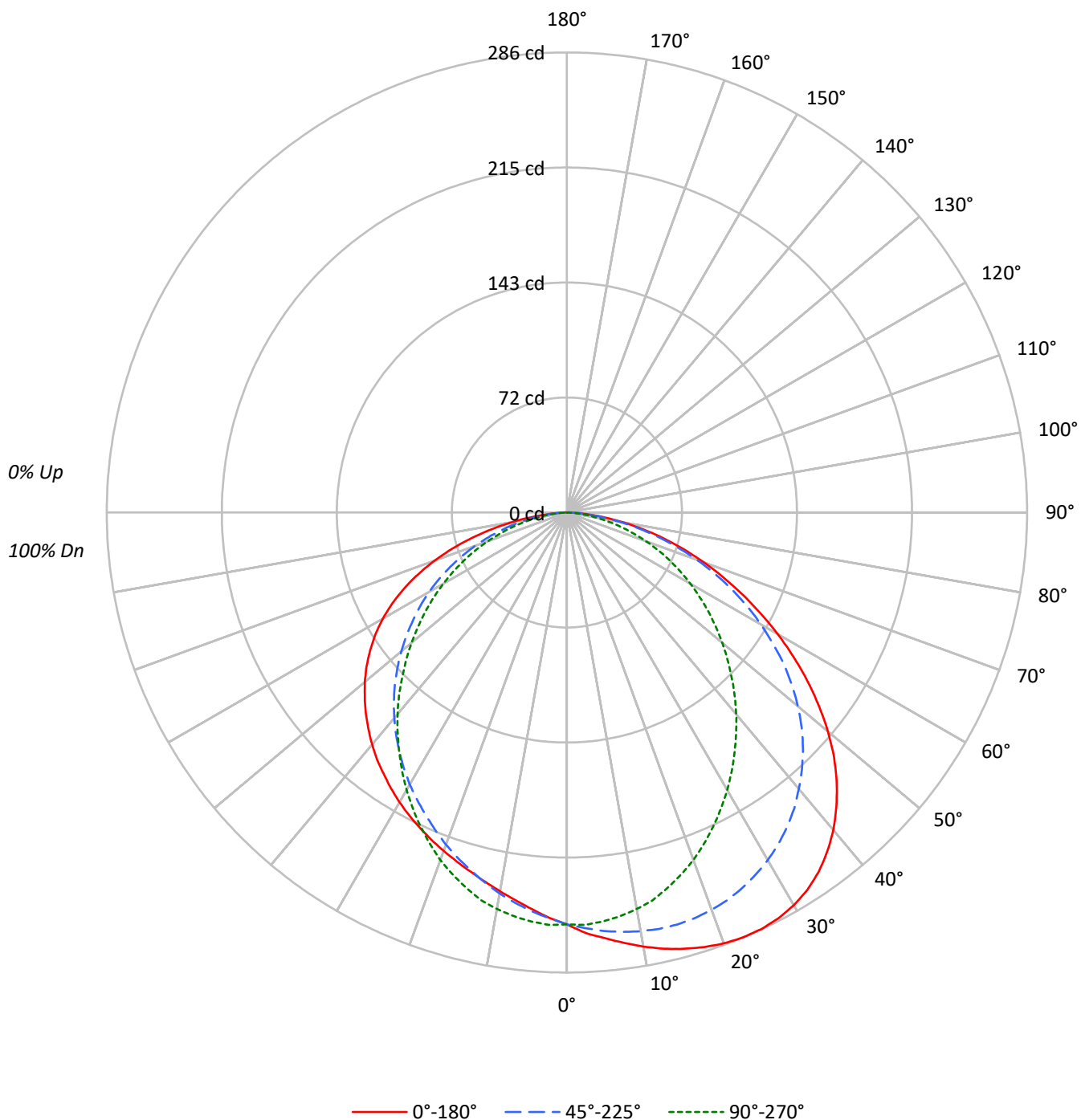
Lumens per Lamp: N/A
Luminaire Lumens: 753.0 lumens
Efficiency: N/A
Efficacy: 64.4 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
Input Voltage (V): 120
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: 28.75 FT

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Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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	94	97	94	91	94	91	88	90	88	86	84		
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70		
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58		
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50		
5	76	63	54	47	73	61	53	47	59	52	46	57	51	46	55	50	45	43		
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	37		
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33		
8	60	46	38	32	59	46	38	32	44	37	32	43	36	31	42	36	31	29		
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	26		
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	689	689	689
5°	717	689	669
10°	749	684	653
15°	782	673	644
20°	816	658	641
25°	849	639	642
30°	876	619	646
35°	896	597	652
40°	905	575	661
45°	903	551	672
50°	887	527	686
55°	856	503	700
60°	815	477	711
65°	765	448	710
70°	712	413	689
75°	647	363	635
80°	555	298	536
85°	423	204	367

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.3	3.2
10°-20°	70.1	9.3
20°-30°	107.4	14.3
30°-40°	131.1	17.4
40°-50°	137.1	18.2
50°-60°	124.1	16.5
60°-70°	94.0	12.5
70°-80°	52.4	7.0
80°-90°	12.6	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°	201.8	26.8
0°-40°	332.9	44.2
0°-60°	594.1	78.9
0°-90°	753.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	753.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	256	256	256	256	256	
5°	266	261	255	249	248	26
15°	281	265	242	230	231	80
25°	286	258	215	208	216	132
35°	273	239	182	182	198	170
45°	237	208	145	151	177	182
55°	182	165	107	117	149	163
65°	120	113	70	80	112	119
75°	62	59	35	42	61	66
85°	14	12	7	9	12	16
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	256.0	256.0	256.0	256.0	256.0	256.0	256.0	256.0	256.0	256.0	256.0
2.5°	261.6	260.4	259.4	259.8	260.0	259.2	258.6	258.7	258.0	259.3	256.3
5°	265.5	264.4	263.2	263.7	263.2	262.0	261.1	260.8	259.0	259.7	256.7
7.5°	269.8	268.6	266.9	267.4	266.4	264.2	263.0	262.3	259.5	259.6	256.2
10°	274.0	272.9	270.5	270.9	269.1	266.2	264.3	263.3	259.4	258.8	255.3
12.5°	277.8	276.4	273.8	274.0	271.5	267.6	265.1	263.7	258.6	256.9	253.5
15°	280.8	279.4	276.4	276.3	273.1	268.0	265.2	263.2	256.8	254.1	250.5
17.5°	283.3	282.0	278.3	278.2	274.2	267.9	264.4	261.9	254.1	250.8	246.8
20°	285.1	283.8	279.6	279.2	274.5	267.0	262.9	259.7	250.6	246.7	242.2
22.5°	285.9	284.6	279.9	279.3	273.8	265.3	260.8	257.0	246.5	241.5	236.9
25°	285.8	284.5	279.2	278.6	272.6	262.8	257.7	253.4	241.4	235.5	230.9
27.5°	284.4	283.4	277.8	277.0	270.2	259.4	253.9	249.2	235.8	229.2	224.2
30°	282.0	281.2	275.2	274.6	267.3	255.7	249.6	244.1	229.7	222.3	217.2
32.5°	278.1	277.4	271.4	270.8	263.4	250.8	244.5	238.8	223.0	214.8	209.8
35°	272.8	272.4	266.5	265.8	258.3	245.4	238.6	232.4	216.1	206.8	202.0
37.5°	265.8	265.8	260.1	259.4	252.1	238.6	232.0	225.4	208.3	198.4	193.7
40°	257.7	258.4	252.6	251.9	244.8	231.4	224.2	217.2	199.8	189.6	184.9
42.5°	247.9	248.6	243.8	243.1	236.5	223.1	216.3	208.8	191.0	180.6	175.8
45°	237.2	238.1	233.8	233.3	227.1	214.0	207.5	199.8	181.7	171.2	166.5
47.5°	225.2	226.4	222.6	222.4	216.6	204.6	197.9	190.1	172.1	161.4	157.0
50°	211.8	213.5	210.4	210.4	205.2	193.3	187.4	179.7	162.0	151.3	146.9
52.5°	197.4	199.5	197.2	197.3	193.1	182.4	176.3	168.7	151.5	141.0	136.9
55°	182.5	184.6	183.1	183.4	180.1	170.3	164.8	157.2	140.7	130.5	126.7
57.5°	167.0	169.2	168.3	168.7	166.4	157.7	151.9	145.3	129.6	119.5	116.3
60°	151.4	153.5	153.0	153.6	152.1	144.6	139.3	132.5	118.5	108.8	105.9
62.5°	135.6	137.5	137.4	138.1	137.3	131.0	126.3	120.5	107.0	98.0	95.4
65°	120.1	121.8	121.7	122.4	122.3	117.2	113.0	107.7	95.5	87.2	84.9
67.5°	105.1	106.5	106.1	107.0	107.2	103.2	99.5	94.7	84.5	76.5	74.5
70°	90.5	91.4	90.9	91.5	92.0	89.0	85.8	81.6	72.8	65.7	64.1
72.5°	76.1	76.8	76.0	76.5	77.0	74.8	72.2	68.6	61.3	55.2	53.8
75°	62.2	63.1	61.5	62.1	62.4	60.2	58.7	55.7	49.4	44.7	43.8
77.5°	48.7	49.2	48.3	48.1	48.3	46.8	45.6	43.3	38.6	34.7	34.1
80°	35.8	36.1	35.3	35.0	35.2	34.1	33.2	31.5	28.1	25.2	25.0
82.5°	24.0	24.2	23.4	23.2	23.3	22.9	21.9	20.7	19.1	16.7	16.6
85°	13.7	13.7	13.1	12.9	13.0	12.5	12.1	11.5	10.9	9.2	9.3
87.5°	5.0	5.0	4.8	4.7	5.3	4.6	4.5	4.2	4.4	3.5	3.7
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):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	256.0	256.0	256.0	256.0	256.0	256.0	256.0	256.0	256.0	256.0	256.0
2.5°	257.1	256.6	256.1	254.3	255.0	253.3	253.1	252.5	252.0	251.0	252.2
5°	256.3	255.2	253.7	251.6	252.2	250.1	249.7	248.9	248.2	247.0	247.9
7.5°	254.9	253.1	250.8	248.2	249.0	246.4	245.7	244.9	244.3	242.8	243.7
10°	253.0	250.3	247.7	244.5	245.1	242.2	241.4	240.5	240.0	238.7	239.5
12.5°	250.0	246.8	243.1	239.7	240.3	237.6	236.5	235.6	235.4	234.3	235.3
15°	246.0	241.6	237.9	234.2	235.0	231.8	231.3	230.4	230.6	229.9	231.2
17.5°	241.1	236.0	231.9	227.9	228.7	226.1	225.7	225.2	225.5	225.4	226.7
20°	235.5	229.9	225.2	221.2	221.7	219.6	219.8	219.7	220.2	220.9	222.7
22.5°	229.1	222.8	217.9	213.9	214.5	212.7	213.5	213.7	214.7	216.1	218.4
25°	222.0	215.3	210.1	206.3	206.9	205.7	207.1	207.6	209.2	211.5	213.9
27.5°	214.6	207.4	201.9	198.3	199.5	198.3	200.3	201.4	203.7	206.3	209.3
30°	206.7	199.3	193.6	190.4	191.5	190.4	193.7	195.2	197.5	201.0	204.5
32.5°	198.4	190.6	185.0	182.5	183.3	183.1	186.8	188.5	191.5	195.6	199.3
35°	189.9	181.7	176.1	174.0	175.0	175.2	179.6	181.5	184.9	189.7	193.8
37.5°	181.1	172.8	167.3	165.6	166.4	167.2	172.3	174.3	178.1	183.4	187.8
40°	172.0	163.7	158.3	156.9	157.7	158.6	164.2	166.9	171.0	176.8	181.6
42.5°	162.8	154.4	149.2	148.2	149.1	150.8	156.7	159.2	163.6	169.9	175.3
45°	153.4	144.7	140.2	139.4	140.3	142.3	148.1	151.1	155.7	162.7	168.4
47.5°	143.9	135.4	131.1	130.6	131.5	133.7	140.1	142.9	147.8	155.2	161.4
50°	134.2	126.0	121.9	121.7	122.5	124.9	131.0	134.3	139.4	147.7	154.0
52.5°	124.5	116.6	112.9	112.9	113.6	116.1	122.3	125.6	130.9	139.7	146.7
55°	114.8	107.3	103.7	104.0	105.1	107.2	113.2	116.7	122.0	131.2	138.5
57.5°	105.0	97.9	94.7	95.1	96.1	98.3	104.1	108.1	112.9	122.4	129.9
60°	95.4	88.7	85.8	86.3	87.2	89.4	95.5	98.9	103.7	113.3	120.9
62.5°	85.7	79.6	76.9	77.4	78.3	80.4	86.2	89.5	94.2	103.7	111.3
65°	76.0	70.4	68.1	68.7	69.4	71.4	76.8	80.0	84.5	93.8	101.1
67.5°	66.5	61.4	59.5	60.0	60.7	62.5	67.0	70.4	74.7	83.5	90.4
70°	57.1	52.5	50.9	51.4	52.0	53.7	57.6	60.8	64.7	72.7	79.1
72.5°	47.8	43.4	42.5	43.0	43.5	44.9	48.7	51.2	54.6	61.8	67.3
75°	38.8	34.9	34.4	34.9	35.3	36.4	39.5	41.7	44.5	50.8	55.2
77.5°	30.0	26.8	26.6	27.0	27.4	28.1	30.6	32.9	35.1	39.7	43.7
80°	21.9	19.2	19.2	19.6	19.5	20.5	22.2	24.1	25.7	29.0	31.9
82.5°	14.4	12.4	12.6	12.9	13.1	13.5	14.5	15.9	17.0	19.0	20.9
85°	8.0	6.6	6.9	7.1	7.0	7.4	8.0	8.8	9.3	10.3	11.3
87.5°	3.0	2.5	2.5	2.7	2.8	3.0	3.0	3.5	3.6	3.7	3.9
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):

	160°	170°	180°
0°	256.0	256.0	256.0
2.5°	249.9	251.2	252.2
5°	245.6	246.7	247.6
7.5°	241.4	242.4	243.2
10°	237.4	238.5	239.1
12.5°	233.3	234.6	235.1
15°	229.3	230.6	231.2
17.5°	225.2	226.8	227.5
20°	221.3	223.4	223.9
22.5°	217.4	219.6	220.2
25°	213.1	215.7	216.3
27.5°	208.6	211.7	212.3
30°	204.1	207.4	208.0
32.5°	199.2	202.8	203.4
35°	194.1	197.7	198.4
37.5°	188.5	192.4	193.8
40°	182.6	186.9	188.3
42.5°	176.4	181.1	182.6
45°	169.8	175.0	176.7
47.5°	163.2	169.0	170.4
50°	155.9	162.2	163.9
52.5°	148.4	155.2	156.9
55°	140.6	147.4	149.3
57.5°	132.1	139.1	141.1
60°	123.2	130.2	132.1
62.5°	114.0	120.4	122.3
65°	103.9	109.8	111.5
67.5°	93.1	98.5	99.9
70°	81.6	86.3	87.6
72.5°	69.6	72.9	74.5
75°	57.2	59.9	61.1
77.5°	44.8	46.7	47.7
80°	32.7	33.7	34.6
82.5°	21.4	21.8	22.4
85°	11.5	11.5	11.9
87.5°	3.9	3.7	3.9
90°	0.0	0.0	0.0

(END OF REPORT)