

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: P485639

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-1LO-20-120-EDD**

Issue Date: 3/1/2021

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: P485639
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35357)
Test Lab: INNOVATION CENTER
Issue Date: 3/1/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: ORLG-24-2-INS-89BC-LD4-1LO-20-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

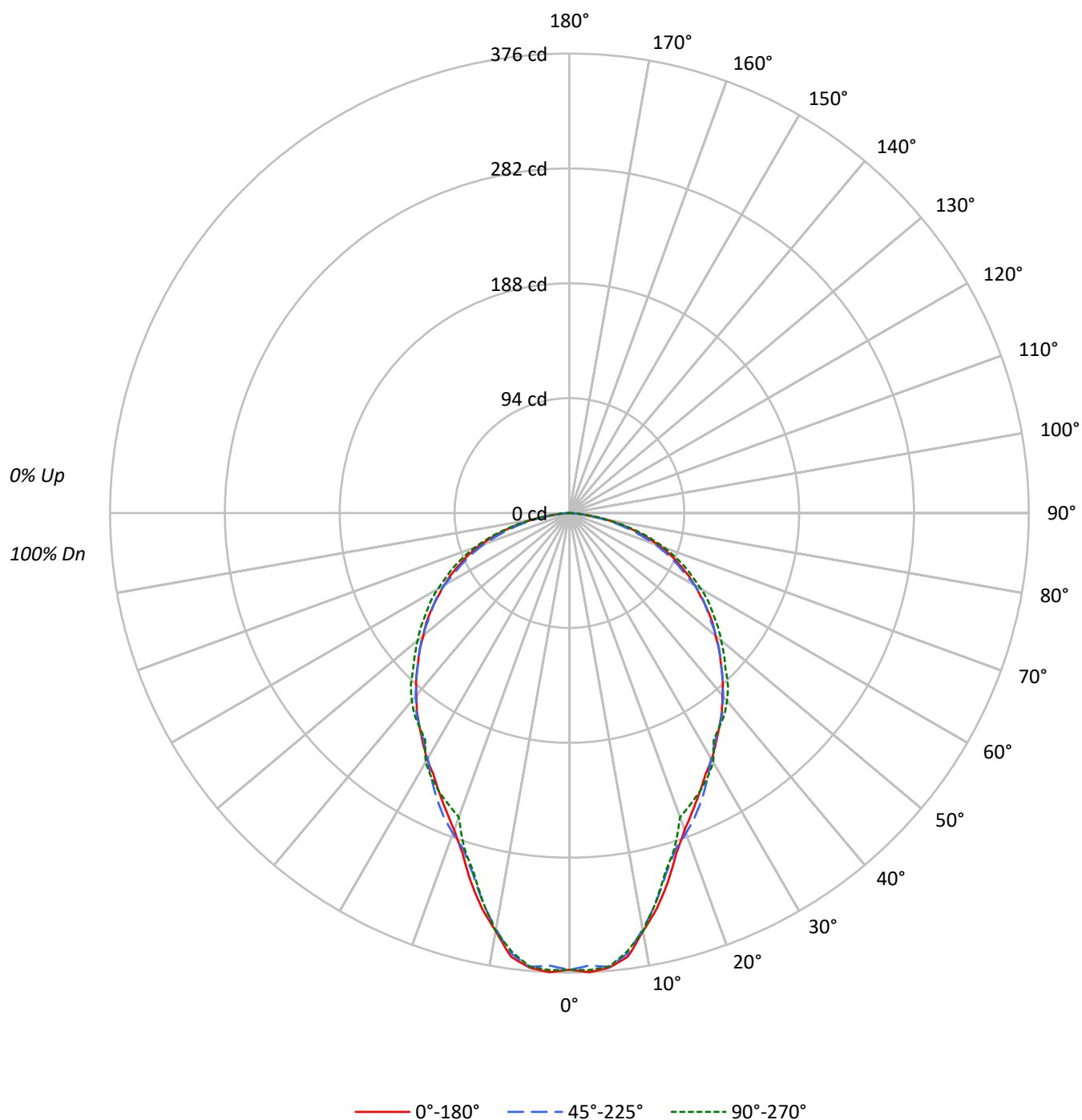
Lumens per Lamp: N/A
Luminaire Lumens: 799.3 lumens
Efficiency: N/A
Efficacy: 68.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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

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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
RCR																					
0	119	119	119	119		116	116	116	116		111	111	111		106	106	106		102	102	102
1	109	104	100	96		106	102	98	95		98	95	92		94	91	89		90	88	86
2	99	91	84	79		97	89	83	78		86	81	76		82	78	74		79	76	73
3	91	80	72	66		88	79	71	65		76	69	64		73	67	63		70	66	62
4	83	71	63	56		81	70	62	56		67	60	55		65	59	54		63	58	53
5	77	64	55	48		75	63	54	48		61	53	48		59	52	47		57	51	47
6	71	58	49	43		69	57	48	42		55	48	42		53	47	42		52	46	41
7	66	53	44	38		64	52	44	38		50	43	37		49	42	37		47	41	37
8	61	48	40	34		60	47	39	34		46	39	34		45	38	33		44	38	33
9	58	44	36	31		56	44	36	31		43	35	30		41	35	30		40	35	30
10	54	41	33	28		53	40	33	28		40	33	28		39	32	28		38	32	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1006	1006	1006
5°	1009	1007	1006
10°	949	945	948
15°	869	851	846
20°	790	799	758
25°	749	764	748
30°	723	721	731
35°	702	702	702
40°	685	687	705
45°	668	667	688
50°	654	658	679
55°	646	644	673
60°	638	637	670
65°	630	610	666
70°	618	582	648
75°	572	518	600
80°	463	422	476
85°	293	266	259



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.7	4.3
10°-20°	86.8	10.9
20°-30°	117.2	14.7
30°-40°	134.2	16.8
40°-50°	137.5	17.2
50°-60°	124.7	15.6
60°-70°	97.4	12.2
70°-80°	55.2	6.9
80°-90°	11.6	1.5
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°	238.7	29.9
0°-40°	372.9	46.7
0°-60°	635.2	79.5
0°-90°	799.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	799.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	374	374	374	374	374	
5°	373	369	373	374	372	35
15°	312	313	305	307	304	87
25°	252	256	257	251	252	116
35°	214	214	214	214	214	134
45°	176	177	175	182	181	136
55°	138	138	137	142	143	123
65°	99	97	96	100	105	98
75°	55	51	50	53	58	58
85°	10	9	9	8	8	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	373.7	373.7	373.7	373.7	373.7
2.5°	376.1	373.2	370.6	374.7	374.3
5°	373.4	369.1	372.8	373.6	372.4
7.5°	366.2	363.4	363.6	362.1	361.9
10°	347.3	348.9	345.8	348.5	347.1
12.5°	331.2	332.2	326.7	327.9	326.3
15°	312.1	313.1	305.3	306.9	303.6
17.5°	291.3	294.8	288.4	290.4	286.9
20°	275.8	278.7	278.9	275.8	264.7
22.5°	263.5	266.5	268.8	259.5	258.3
25°	252.3	255.6	257.3	251.1	251.9
27.5°	241.0	244.7	244.7	246.1	244.3
30°	232.8	234.4	231.9	236.9	235.4
32.5°	223.1	223.7	221.6	225.3	219.8
35°	213.8	214.2	213.8	214.0	213.8
37.5°	204.9	203.9	205.6	204.5	208.2
40°	194.9	194.9	195.7	197.7	200.6
42.5°	185.8	186.6	185.6	191.1	192.2
45°	175.5	176.9	175.3	182.5	180.8
47.5°	166.2	166.8	166.4	171.2	171.6
50°	156.1	156.8	157.2	161.5	162.1
52.5°	147.7	147.5	146.2	152.4	153.3
55°	137.8	137.6	137.2	142.1	143.4
57.5°	127.7	127.9	128.9	131.6	134.9
60°	118.6	117.6	118.4	121.7	124.4
62.5°	109.2	107.5	105.7	111.2	113.7
65°	98.9	96.8	95.8	100.3	104.6
67.5°	89.4	85.9	85.3	88.4	93.5
70°	78.5	74.2	74.0	76.4	82.4
72.5°	66.5	62.8	61.8	64.9	70.4
75°	55.0	50.9	49.8	52.7	57.7
77.5°	42.6	39.3	38.5	40.0	44.1
80°	29.9	28.0	27.2	27.8	30.7
82.5°	18.9	17.5	17.1	16.9	18.5
85°	9.5	8.6	8.6	8.0	8.4
87.5°	2.9	2.7	2.5	1.9	2.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)