

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: P485638

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-1LO-20-120-EDD-90**

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: P485638
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-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

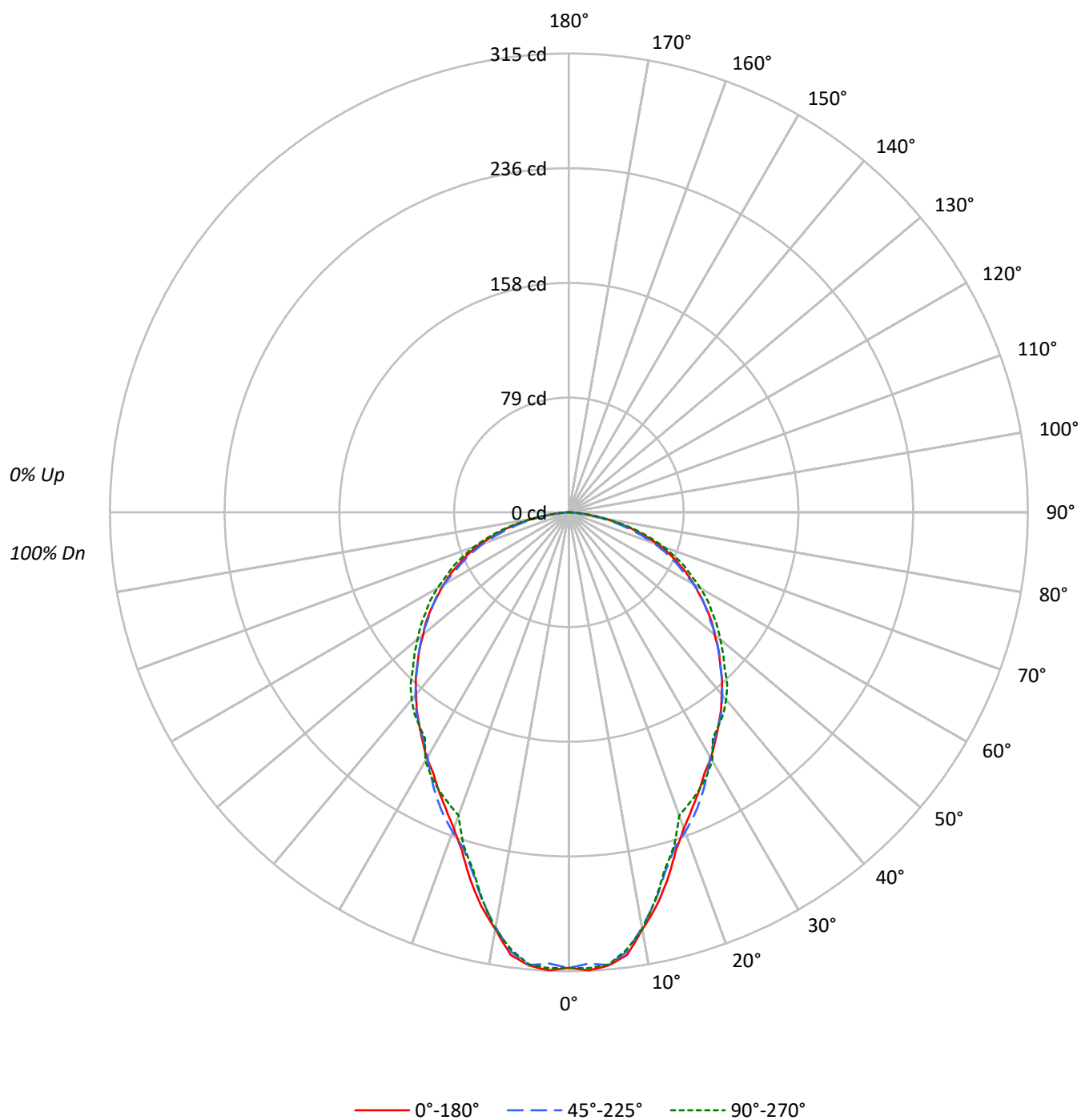
Lumens per Lamp: N/A
Luminaire Lumens: 668.8 lumens
Efficiency: N/A
Efficacy: 57.2 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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				0
RW	70	50	30	10	70	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		100
1	109	104	100	96	106	102	98	95	98	95	92		94	91	89		84
2	99	91	84	79	97	89	83	78	86	81	76		82	78	74		70
3	91	80	72	66	88	79	71	65	76	69	64		73	67	63		60
4	83	71	63	56	81	70	62	56	67	60	55		65	59	54		51
5	77	64	55	48	75	63	54	48	61	53	48		59	52	47		45
6	71	58	49	43	69	57	48	42	55	48	42		53	47	42		39
7	66	53	44	38	64	52	44	38	50	43	37		49	42	37		35
8	61	48	40	34	60	47	39	34	46	39	34		45	38	33		31
9	58	44	36	31	56	44	36	31	43	35	30		41	35	30		28
10	54	41	33	28	53	40	33	28	40	33	28		39	32	28		26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	841	841	841
5°	844	843	842
10°	794	791	794
15°	728	712	708
20°	661	668	634
25°	627	639	626
30°	605	603	612
35°	588	588	588
40°	573	575	589
45°	559	558	575
50°	547	551	568
55°	541	539	563
60°	534	533	560
65°	527	511	557
70°	517	488	543
75°	478	433	502
80°	387	353	398
85°	247	222	216



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.0	4.3
10°-20°	72.6	10.9
20°-30°	98.1	14.7
30°-40°	112.3	16.8
40°-50°	115.0	17.2
50°-60°	104.4	15.6
60°-70°	81.5	12.2
70°-80°	46.2	6.9
80°-90°	9.7	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°	199.7	29.9
0°-40°	312.0	46.7
0°-60°	531.4	79.5
0°-90°	668.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	668.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	313	313	313	313	313	
5°	312	309	312	313	312	29
15°	261	262	256	257	254	73
25°	211	214	215	210	211	97
35°	179	179	179	179	179	112
45°	147	148	147	153	151	114
55°	115	115	115	119	120	103
65°	83	81	80	84	88	82
75°	46	43	42	44	48	48
85°	8	7	7	7	7	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	312.7	312.7	312.7	312.7	312.7
2.5°	314.7	312.2	310.1	313.5	313.2
5°	312.4	308.8	311.9	312.6	311.6
7.5°	306.4	304.1	304.3	303.0	302.8
10°	290.6	291.9	289.3	291.6	290.4
12.5°	277.1	277.9	273.4	274.3	273.0
15°	261.2	262.0	255.5	256.8	254.0
17.5°	243.8	246.7	241.3	243.0	240.0
20°	230.8	233.2	233.4	230.8	221.5
22.5°	220.5	223.0	224.9	217.1	216.1
25°	211.1	213.9	215.3	210.1	210.8
27.5°	201.7	204.7	204.7	205.9	204.4
30°	194.8	196.1	194.0	198.2	196.9
32.5°	186.7	187.2	185.4	188.5	183.9
35°	178.9	179.2	178.9	179.0	178.9
37.5°	171.4	170.6	172.1	171.1	174.2
40°	163.1	163.1	163.8	165.4	167.8
42.5°	155.5	156.1	155.3	159.9	160.8
45°	146.8	148.0	146.7	152.7	151.2
47.5°	139.0	139.5	139.2	143.3	143.6
50°	130.6	131.2	131.6	135.1	135.6
52.5°	123.6	123.4	122.3	127.5	128.3
55°	115.3	115.1	114.8	118.9	120.0
57.5°	106.8	107.0	107.8	110.1	112.9
60°	99.2	98.4	99.0	101.8	104.1
62.5°	91.4	89.9	88.5	93.0	95.1
65°	82.8	81.0	80.2	83.9	87.5
67.5°	74.8	71.9	71.4	74.0	78.2
70°	65.7	62.1	62.0	63.9	69.0
72.5°	55.6	52.5	51.7	54.3	58.9
75°	46.0	42.6	41.6	44.1	48.3
77.5°	35.6	32.8	32.2	33.5	36.9
80°	25.0	23.4	22.8	23.3	25.7
82.5°	15.8	14.6	14.3	14.1	15.4
85°	8.0	7.2	7.2	6.7	7.0
87.5°	2.4	2.3	2.1	1.6	1.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)