

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: P487108

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-6HI-35-120-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: P487108
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-24-4-INS-89BC-LD4-6HI-35-120-EDD-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

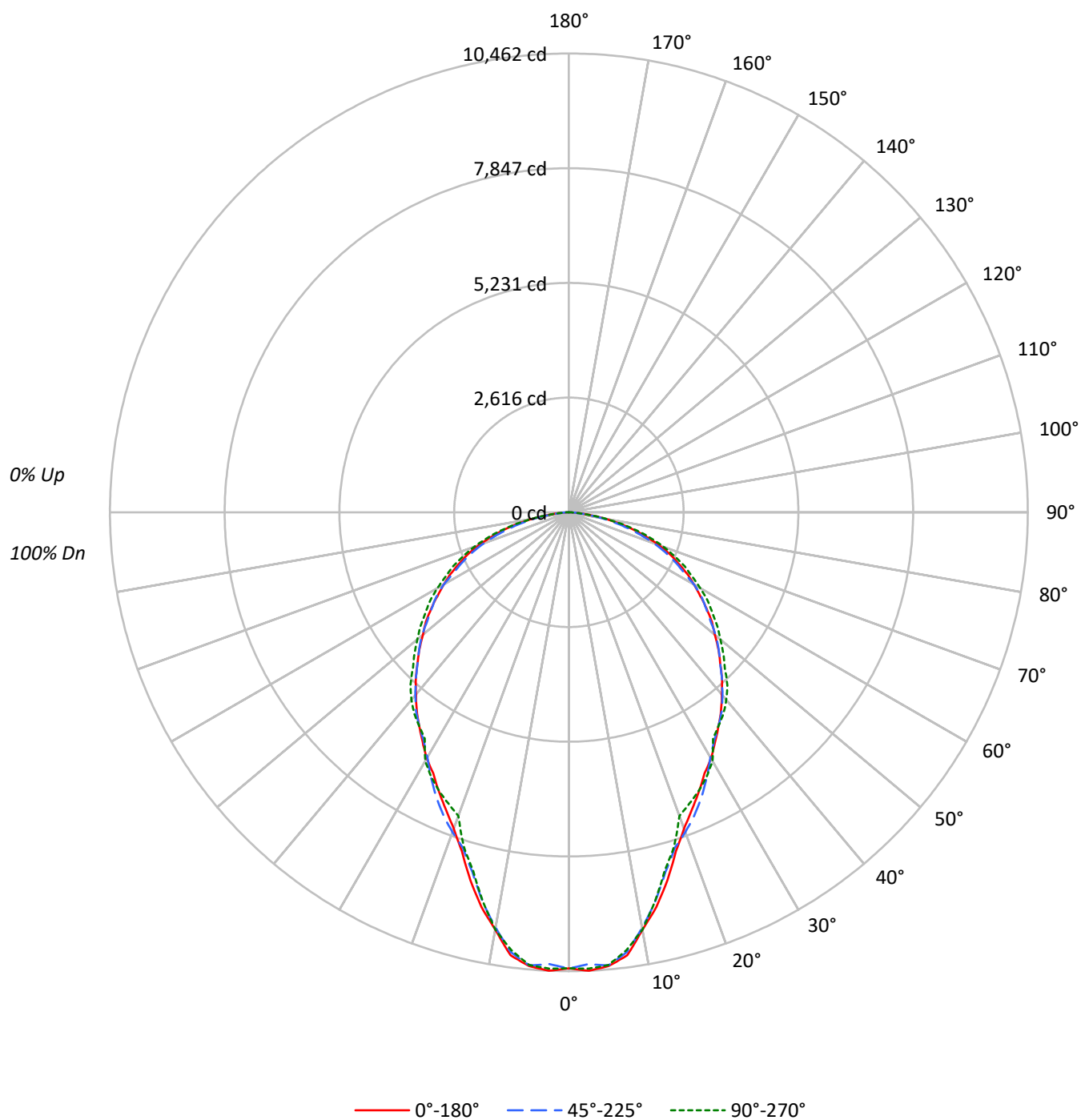
Lumens per Lamp: N/A
Luminaire Lumens: 22234.3 lumens
Efficiency: N/A
Efficacy: 84.2 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 264
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		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°	13989	13989	13989
5°	14027	14005	13991
10°	13200	13141	13192
15°	12095	11831	11763
20°	10985	11109	10543
25°	10418	10627	10402
30°	10063	10021	10172
35°	9768	9768	9768
40°	9524	9562	9800
45°	9290	9279	9567
50°	9087	9155	9438
55°	8992	8954	9359
60°	8875	8860	9311
65°	8761	8486	9260
70°	8593	8104	9018
75°	7954	7195	8347
80°	6451	5865	6619
85°	4089	3673	3589



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	965.6	4.3
10°-20°	2414.1	10.9
20°-30°	3260.2	14.7
30°-40°	3733.4	16.8
40°-50°	3824.2	17.2
50°-60°	3470.0	15.6
60°-70°	2708.2	12.2
70°-80°	1536.0	6.9
80°-90°	322.4	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°	6640.0	29.9
0°-40°	10373.4	46.7
0°-60°	17667.6	79.5
0°-90°	22234.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	22234.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	10397	10397	10397	10397	10397	
5°	10386	10267	10370	10391	10359	970
15°	8683	8710	8494	8537	8445	2427
25°	7018	7110	7158	6985	7007	3238
35°	5947	5958	5947	5952	5947	3725
45°	4882	4920	4877	5077	5028	3775
55°	3833	3828	3817	3952	3990	3426
65°	2752	2692	2665	2790	2909	2727
75°	1530	1416	1384	1465	1606	1601
85°	265	238	238	222	232	350
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	10396.6	10396.6	10396.6	10396.6	10396.6
2.5°	10461.5	10380.4	10310.1	10423.6	10412.8
5°	10385.8	10266.8	10369.5	10391.2	10358.7
7.5°	10185.7	10110.0	10115.4	10072.2	10066.8
10°	9661.3	9704.6	9618.0	9693.7	9655.9
12.5°	9212.6	9239.6	9088.2	9120.7	9077.4
15°	8682.7	8709.8	8493.5	8536.8	8444.9
17.5°	8104.2	8201.6	8023.2	8077.2	7979.9
20°	7671.7	7752.8	7758.2	7671.7	7363.6
22.5°	7331.1	7412.2	7477.1	7217.6	7185.2
25°	7017.6	7109.5	7158.1	6985.1	7006.7
27.5°	6704.0	6806.7	6806.7	6844.5	6795.9
30°	6476.9	6520.2	6449.9	6590.4	6547.2
32.5°	6206.6	6222.8	6163.3	6266.1	6114.7
35°	5947.1	5957.9	5947.1	5952.5	5947.1
37.5°	5698.4	5671.4	5720.0	5687.6	5790.3
40°	5422.7	5422.7	5444.3	5498.3	5579.4
42.5°	5168.6	5190.2	5163.1	5314.5	5347.0
45°	4882.0	4919.9	4876.6	5076.6	5028.0
47.5°	4622.5	4638.7	4627.9	4763.1	4773.9
50°	4341.4	4363.0	4373.8	4492.7	4509.0
52.5°	4108.9	4103.5	4065.6	4238.6	4265.7
55°	3833.2	3827.8	3816.9	3952.1	3989.9
57.5°	3552.0	3557.4	3584.5	3660.2	3752.1
60°	3297.9	3270.9	3292.5	3384.4	3460.1
62.5°	3038.4	2989.8	2941.1	3092.5	3162.8
65°	2751.9	2692.4	2665.4	2789.7	2908.7
67.5°	2487.0	2389.6	2373.4	2459.9	2600.5
70°	2184.2	2065.3	2059.9	2124.7	2292.3
72.5°	1849.0	1746.3	1719.2	1805.7	1957.1
75°	1530.0	1416.5	1384.0	1465.1	1605.7
77.5°	1184.0	1092.1	1070.5	1113.7	1227.3
80°	832.6	778.5	756.9	773.1	854.2
82.5°	524.4	486.6	475.8	470.4	513.6
85°	264.9	237.9	237.9	221.7	232.5
87.5°	81.1	75.7	70.3	54.1	59.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)