

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: P487038

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-4HI-40-120-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: P487038
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-LD4-4HI-40-120-EDD-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

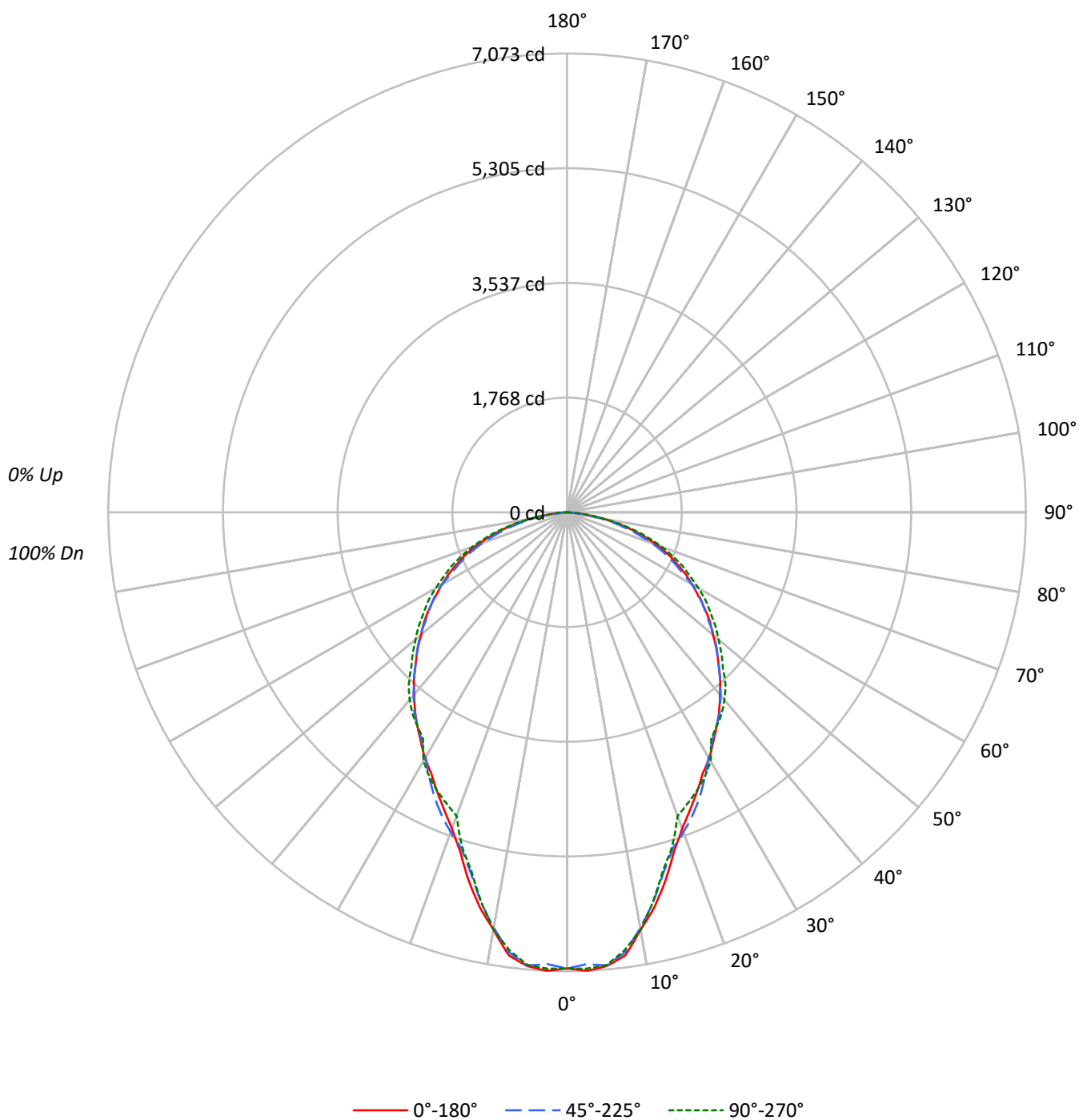
Lumens per Lamp: N/A
Luminaire Lumens: 15033.3 lumens
Efficiency: N/A
Efficacy: 85.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 176
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°	9458	9458	9458
5°	9484	9470	9460
10°	8925	8885	8920
15°	8178	7999	7953
20°	7427	7511	7129
25°	7044	7185	7033
30°	6804	6775	6878
35°	6605	6605	6605
40°	6440	6465	6626
45°	6281	6274	6469
50°	6144	6190	6382
55°	6080	6054	6328
60°	6000	5991	6296
65°	5924	5737	6261
70°	5810	5479	6097
75°	5378	4865	5644
80°	4362	3966	4475
85°	2765	2482	2427



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	652.9	4.3
10°-20°	1632.3	10.9
20°-30°	2204.3	14.7
30°-40°	2524.3	16.8
40°-50°	2585.7	17.2
50°-60°	2346.2	15.6
60°-70°	1831.1	12.2
70°-80°	1038.6	6.9
80°-90°	218.0	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°	4489.5	29.9
0°-40°	7013.8	46.7
0°-60°	11945.6	79.5
0°-90°	15033.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	15033.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7029	7029	7029	7029	7029	
5°	7022	6942	7011	7026	7004	656
15°	5871	5889	5743	5772	5710	1641
25°	4745	4807	4840	4723	4738	2189
35°	4021	4028	4021	4025	4021	2519
45°	3301	3326	3297	3432	3400	2552
55°	2592	2588	2581	2672	2698	2316
65°	1861	1820	1802	1886	1967	1844
75°	1034	958	936	991	1086	1082
85°	179	161	161	150	157	237
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7029.4	7029.4	7029.4	7029.4	7029.4
2.5°	7073.3	7018.5	6971.0	7047.7	7040.4
5°	7022.1	6941.7	7011.2	7025.8	7003.9
7.5°	6886.9	6835.7	6839.4	6810.1	6806.5
10°	6532.3	6561.5	6503.1	6554.2	6528.6
12.5°	6228.9	6247.2	6144.8	6166.8	6137.5
15°	5870.7	5888.9	5742.7	5772.0	5709.8
17.5°	5479.5	5545.3	5424.7	5461.3	5395.5
20°	5187.1	5241.9	5245.6	5187.1	4978.7
22.5°	4956.8	5011.6	5055.5	4880.0	4858.1
25°	4744.8	4806.9	4839.8	4722.9	4737.5
27.5°	4532.8	4602.2	4602.2	4627.8	4594.9
30°	4379.2	4408.5	4361.0	4456.0	4426.8
32.5°	4196.5	4207.4	4167.2	4236.7	4134.3
35°	4021.0	4028.3	4021.0	4024.7	4021.0
37.5°	3852.9	3834.6	3867.5	3845.5	3915.0
40°	3666.4	3666.4	3681.0	3717.6	3772.4
42.5°	3494.6	3509.2	3491.0	3593.3	3615.2
45°	3300.9	3326.5	3297.2	3432.5	3399.6
47.5°	3125.4	3136.4	3129.1	3220.5	3227.8
50°	2935.3	2950.0	2957.3	3037.7	3048.7
52.5°	2778.1	2774.5	2748.9	2865.9	2884.2
55°	2591.7	2588.1	2580.8	2672.1	2697.7
57.5°	2401.6	2405.3	2423.6	2474.7	2536.9
60°	2229.8	2211.6	2226.2	2288.3	2339.5
62.5°	2054.4	2021.5	1988.6	2090.9	2138.4
65°	1860.6	1820.4	1802.1	1886.2	1966.6
67.5°	1681.5	1615.7	1604.7	1663.2	1758.3
70°	1476.8	1396.4	1392.7	1436.6	1549.9
72.5°	1250.2	1180.7	1162.4	1220.9	1323.3
75°	1034.5	957.7	935.8	990.6	1085.7
77.5°	800.5	738.4	723.8	753.0	829.8
80°	562.9	526.4	511.8	522.7	577.6
82.5°	354.6	329.0	321.7	318.0	347.3
85°	179.1	160.8	160.8	149.9	157.2
87.5°	54.8	51.2	47.5	36.6	40.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)