

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: P487133

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-6STD-35-120-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: P487133
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-LD4-6STD-35-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

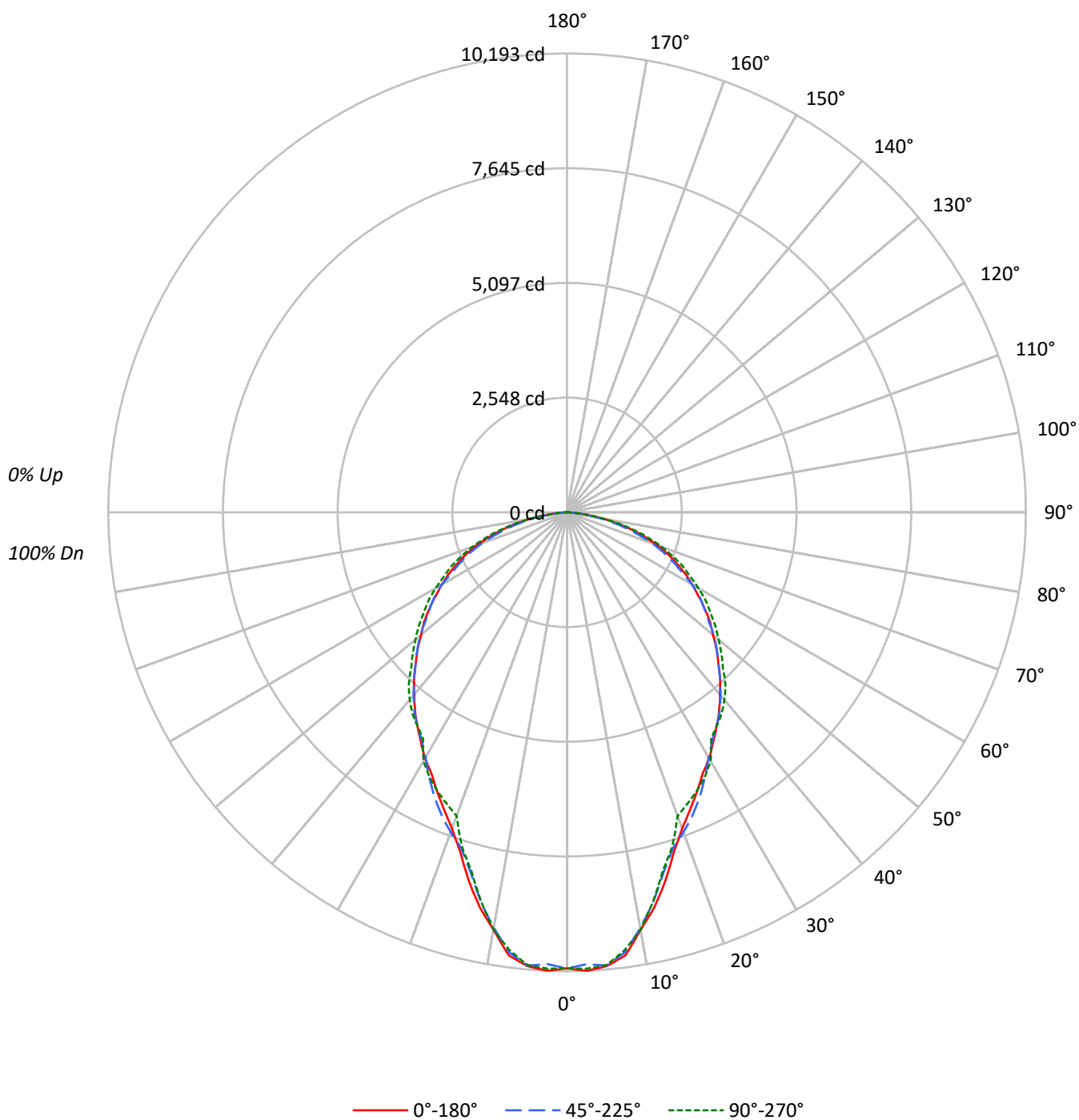
Lumens per Lamp: N/A
Luminaire Lumens: 21663.7 lumens
Efficiency: N/A
Efficacy: 108.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 199.8
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°	13630	13630	13630
5°	13667	13646	13632
10°	12861	12803	12854
15°	11784	11527	11461
20°	10703	10823	10273
25°	10151	10354	10135
30°	9805	9764	9911
35°	9518	9518	9518
40°	9280	9317	9548
45°	9051	9041	9322
50°	8854	8920	9196
55°	8761	8724	9119
60°	8647	8633	9072
65°	8536	8268	9023
70°	8372	7895	8786
75°	7750	7010	8133
80°	6285	5714	6449
85°	3984	3578	3497



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	940.8	4.3
10°-20°	2352.2	10.9
20°-30°	3176.6	14.7
30°-40°	3637.6	16.8
40°-50°	3726.1	17.2
50°-60°	3380.9	15.6
60°-70°	2638.7	12.2
70°-80°	1496.6	6.9
80°-90°	314.1	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°	6469.6	29.9
0°-40°	10107.2	46.7
0°-60°	17214.2	79.5
0°-90°	21663.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	21663.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	10130	10130	10130	10130	10130	
5°	10119	10003	10103	10124	10093	945
15°	8460	8486	8276	8318	8228	2364
25°	6838	6927	6974	6806	6827	3155
35°	5794	5805	5794	5800	5794	3630
45°	4757	4794	4752	4946	4899	3678
55°	3735	3730	3719	3851	3888	3338
65°	2681	2623	2597	2718	2834	2657
75°	1491	1380	1348	1428	1564	1559
85°	258	232	232	216	226	341
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	10129.8	10129.8	10129.8	10129.8	10129.8
2.5°	10193.0	10114.0	10045.5	10156.1	10145.6
5°	10119.2	10003.3	10103.4	10124.5	10092.9
7.5°	9924.3	9850.6	9855.8	9813.7	9808.4
10°	9413.4	9455.5	9371.2	9445.0	9408.1
12.5°	8976.1	9002.5	8855.0	8886.6	8844.5
15°	8459.9	8486.2	8275.5	8317.7	8228.1
17.5°	7896.3	7991.1	7817.3	7869.9	7775.1
20°	7474.9	7553.9	7559.1	7474.9	7174.6
22.5°	7143.0	7222.0	7285.2	7032.4	7000.8
25°	6837.5	6927.0	6974.4	6805.9	6826.9
27.5°	6531.9	6632.0	6632.0	6668.9	6621.5
30°	6310.7	6352.8	6284.4	6421.3	6379.2
32.5°	6047.3	6063.1	6005.2	6105.3	5957.8
35°	5794.5	5805.0	5794.5	5799.7	5794.5
37.5°	5552.1	5525.8	5573.2	5541.6	5641.7
40°	5283.5	5283.5	5304.6	5357.2	5436.3
42.5°	5035.9	5057.0	5030.6	5178.1	5209.7
45°	4756.7	4793.6	4751.5	4946.4	4899.0
47.5°	4503.9	4519.7	4509.1	4640.8	4651.4
50°	4230.0	4251.0	4261.6	4377.5	4393.3
52.5°	4003.4	3998.2	3961.3	4129.9	4156.2
55°	3734.8	3729.5	3719.0	3850.7	3887.6
57.5°	3460.9	3466.1	3492.5	3566.2	3655.8
60°	3213.3	3187.0	3208.0	3297.6	3371.3
62.5°	2960.4	2913.0	2865.6	3013.1	3081.6
65°	2681.3	2623.3	2597.0	2718.1	2834.0
67.5°	2423.1	2328.3	2312.5	2396.8	2533.8
70°	2128.1	2012.3	2007.0	2070.2	2233.5
72.5°	1801.5	1701.5	1675.1	1759.4	1906.9
75°	1490.8	1380.1	1348.5	1427.5	1564.5
77.5°	1153.6	1064.1	1043.0	1085.1	1195.8
80°	811.2	758.5	737.5	753.3	832.3
82.5°	511.0	474.1	463.6	458.3	500.4
85°	258.1	231.8	231.8	216.0	226.5
87.5°	79.0	73.7	68.5	52.7	57.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)