

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: P487135

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-6STD-40-120-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: P487135
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-40-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

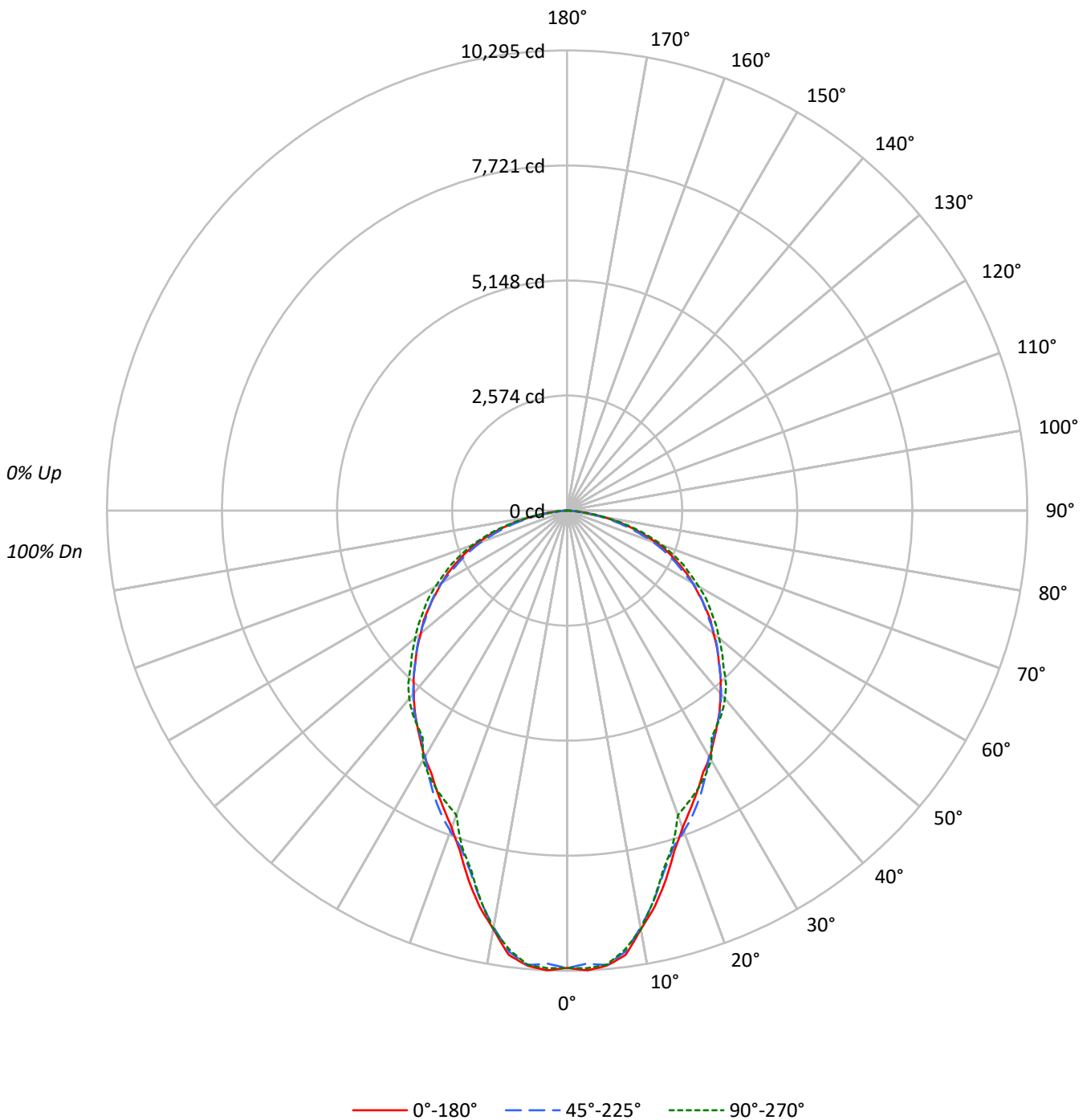
Lumens per Lamp: N/A
Luminaire Lumens: 21880.4 lumens
Efficiency: N/A
Efficacy: 109.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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				10	0
RW	70	50	30	10	70	50	30	10	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	102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31
9	58	44	36	31	56	44	36	31	43	35	30	41	35	30	40	35	30	28
10	54	41	33	28	53	40	33	28	40	33	28	39	32	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13766	13766	13766
5°	13804	13782	13768
10°	12990	12932	12982
15°	11902	11643	11576
20°	10810	10932	10376
25°	10252	10458	10236
30°	9903	9861	10010
35°	9613	9613	9613
40°	9373	9410	9644
45°	9142	9132	9415
50°	8943	9010	9288
55°	8849	8811	9211
60°	8733	8719	9163
65°	8622	8351	9113
70°	8456	7975	8874
75°	7827	7080	8215
80°	6348	5772	6513
85°	4025	3614	3532



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	950.3	4.3
10°-20°	2375.7	10.9
20°-30°	3208.3	14.7
30°-40°	3674.0	16.8
40°-50°	3763.4	17.2
50°-60°	3414.7	15.6
60°-70°	2665.1	12.2
70°-80°	1511.6	6.9
80°-90°	317.3	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°	6534.3	29.9
0°-40°	10208.3	46.7
0°-60°	17386.4	79.5
0°-90°	21880.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	21880.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	10231	10231	10231	10231	10231	
5°	10220	10103	10204	10226	10194	955
15°	8544	8571	8358	8401	8310	2388
25°	6906	6996	7044	6874	6895	3187
35°	5852	5863	5852	5858	5852	3666
45°	4804	4842	4799	4996	4948	3715
55°	3772	3767	3756	3889	3926	3371
65°	2708	2650	2623	2745	2862	2684
75°	1506	1394	1362	1442	1580	1575
85°	261	234	234	218	229	344
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	10231.1	10231.1	10231.1	10231.1	10231.1
2.5°	10294.9	10215.1	10146.0	10257.7	10247.1
5°	10220.5	10103.4	10204.5	10225.8	10193.9
7.5°	10023.6	9949.1	9954.4	9911.9	9906.6
10°	9507.5	9550.1	9465.0	9539.4	9502.2
12.5°	9065.9	9092.5	8943.6	8975.5	8932.9
15°	8544.5	8571.1	8358.3	8400.9	8310.4
17.5°	7975.3	8071.0	7895.4	7948.7	7852.9
20°	7549.6	7629.4	7634.7	7549.6	7246.4
22.5°	7214.4	7294.2	7358.1	7102.7	7070.8
25°	6905.9	6996.3	7044.2	6873.9	6895.2
27.5°	6597.3	6698.4	6698.4	6735.6	6687.7
30°	6373.8	6416.4	6347.2	6485.5	6443.0
32.5°	6107.8	6123.8	6065.2	6166.3	6017.4
35°	5852.4	5863.1	5852.4	5857.7	5852.4
37.5°	5607.7	5581.1	5629.0	5597.0	5698.1
40°	5336.3	5336.3	5357.6	5410.8	5490.6
42.5°	5086.3	5107.6	5081.0	5229.9	5261.9
45°	4804.3	4841.5	4799.0	4995.8	4948.0
47.5°	4548.9	4564.9	4554.2	4687.3	4697.9
50°	4272.3	4293.5	4304.2	4421.2	4437.2
52.5°	4043.5	4038.2	4000.9	4171.2	4197.8
55°	3772.2	3766.8	3756.2	3889.2	3926.4
57.5°	3495.5	3500.8	3527.4	3601.9	3692.3
60°	3245.4	3218.8	3240.1	3330.6	3405.0
62.5°	2990.1	2942.2	2894.3	3043.3	3112.4
65°	2708.1	2649.6	2622.9	2745.3	2862.4
67.5°	2447.4	2351.6	2335.6	2420.8	2559.1
70°	2149.4	2032.4	2027.1	2090.9	2255.8
72.5°	1819.6	1718.5	1691.9	1777.0	1926.0
75°	1505.7	1393.9	1362.0	1441.8	1580.2
77.5°	1165.2	1074.7	1053.4	1096.0	1207.7
80°	819.3	766.1	744.9	760.8	840.6
82.5°	516.1	478.8	468.2	462.9	505.4
85°	260.7	234.1	234.1	218.1	228.8
87.5°	79.8	74.5	69.2	53.2	58.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)