

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: P487129

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-6STD-27-120-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: P487129
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-27-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

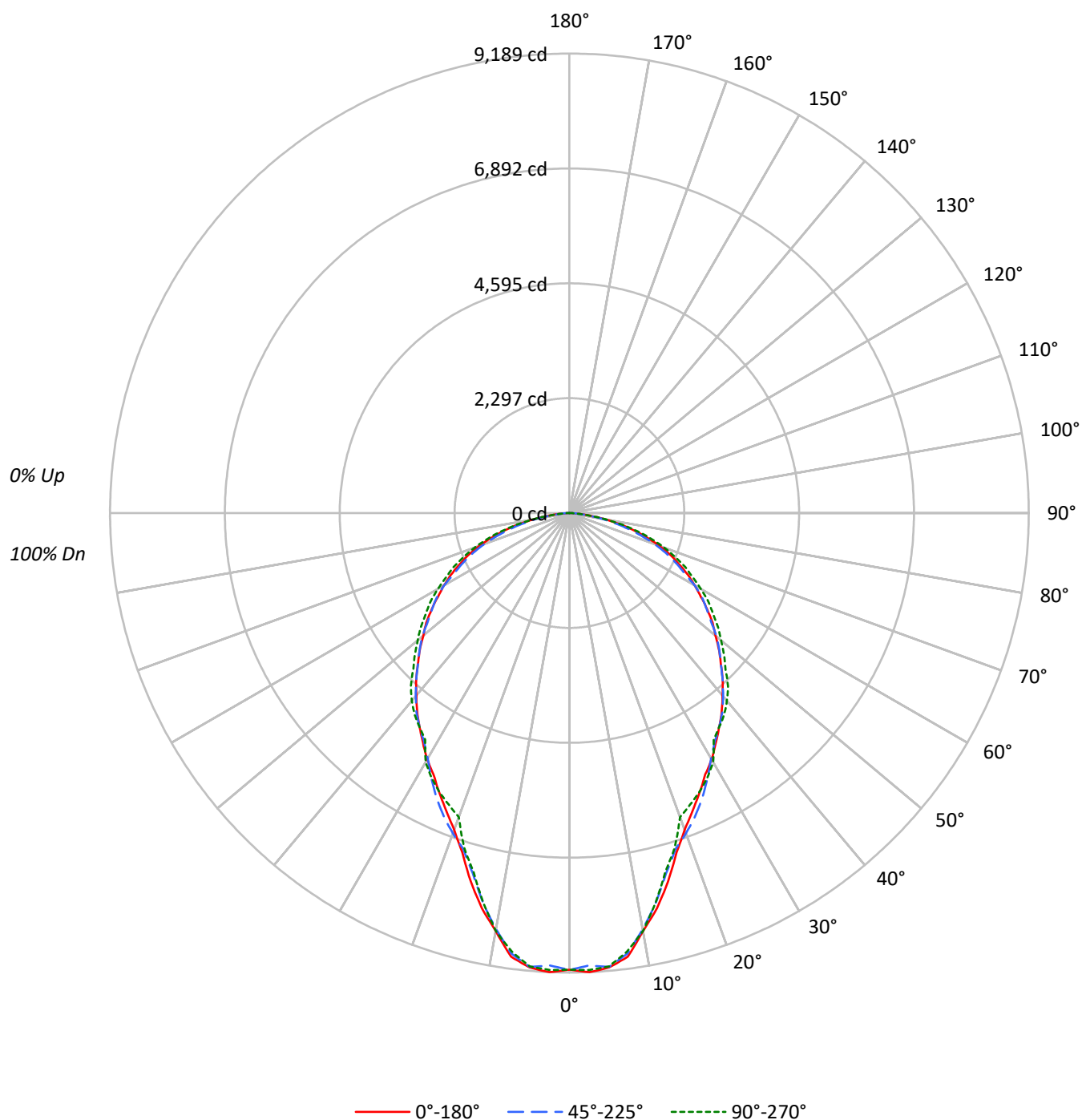
Lumens per Lamp: N/A
Luminaire Lumens: 19530.0 lumens
Efficiency: N/A
Efficacy: 97.7 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	12287	12287	12287
5°	12321	12302	12289
10°	11594	11542	11588
15°	10624	10392	10333
20°	9649	9757	9261
25°	9151	9334	9137
30°	8839	8802	8935
35°	8580	8580	8580
40°	8366	8399	8608
45°	8160	8151	8404
50°	7982	8042	8290
55°	7898	7865	8221
60°	7795	7783	8179
65°	7696	7454	8134
70°	7547	7118	7921
75°	6986	6320	7332
80°	5666	5151	5814
85°	3592	3226	3152



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	848.2	4.3
10°-20°	2120.5	10.9
20°-30°	2863.7	14.7
30°-40°	3279.3	16.8
40°-50°	3359.1	17.2
50°-60°	3047.9	15.6
60°-70°	2378.8	12.2
70°-80°	1349.2	6.9
80°-90°	283.2	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°	5832.3	29.9
0°-40°	9111.7	46.7
0°-60°	15518.7	79.5
0°-90°	19530.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	19530.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9132	9132	9132	9132	9132	
5°	9123	9018	9108	9127	9099	852
15°	7627	7650	7460	7498	7418	2131
25°	6164	6245	6288	6136	6154	2844
35°	5224	5233	5224	5228	5224	3272
45°	4288	4322	4284	4459	4416	3316
55°	3367	3362	3353	3471	3505	3009
65°	2417	2365	2341	2450	2555	2396
75°	1344	1244	1216	1287	1410	1406
85°	233	209	209	195	204	307
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	9132.1	9132.1	9132.1	9132.1	9132.1
2.5°	9189.1	9117.8	9056.1	9155.8	9146.3
5°	9122.6	9018.1	9108.3	9127.3	9098.8
7.5°	8946.9	8880.4	8885.1	8847.1	8842.4
10°	8486.2	8524.2	8448.2	8514.7	8481.5
12.5°	8092.1	8115.8	7982.8	8011.3	7973.3
15°	7626.7	7650.4	7460.5	7498.5	7417.7
17.5°	7118.5	7204.0	7047.3	7094.8	7009.3
20°	6738.6	6809.9	6814.6	6738.6	6468.0
22.5°	6439.5	6510.7	6567.7	6339.7	6311.2
25°	6164.0	6244.8	6287.5	6135.5	6154.5
27.5°	5888.6	5978.8	5978.8	6012.1	5969.3
30°	5689.1	5727.1	5665.4	5788.9	5750.9
32.5°	5451.7	5465.9	5413.7	5503.9	5371.0
35°	5223.8	5233.2	5223.8	5228.5	5223.8
37.5°	5005.3	4981.6	5024.3	4995.8	5086.0
40°	4763.1	4763.1	4782.1	4829.6	4900.8
42.5°	4539.9	4558.9	4535.2	4668.1	4696.6
45°	4288.2	4321.5	4283.5	4459.2	4416.4
47.5°	4060.3	4074.5	4065.0	4183.8	4193.2
50°	3813.3	3832.3	3841.8	3946.3	3960.6
52.5°	3609.1	3604.4	3571.1	3723.1	3746.9
55°	3366.9	3362.2	3352.7	3471.4	3504.7
57.5°	3120.0	3124.8	3148.5	3215.0	3295.7
60°	2896.8	2873.1	2892.1	2972.8	3039.3
62.5°	2668.9	2626.1	2583.4	2716.4	2778.1
65°	2417.2	2364.9	2341.2	2450.4	2554.9
67.5°	2184.5	2099.0	2084.8	2160.7	2284.2
70°	1918.5	1814.1	1809.3	1866.3	2013.5
72.5°	1624.1	1533.9	1510.1	1586.1	1719.1
75°	1343.9	1244.2	1215.7	1286.9	1410.4
77.5°	1040.0	959.3	940.3	978.3	1078.0
80°	731.3	683.8	664.8	679.1	750.3
82.5°	460.6	427.4	417.9	413.2	451.1
85°	232.7	209.0	209.0	194.7	204.2
87.5°	71.2	66.5	61.7	47.5	52.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)