

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: P487097

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-5STD-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: P487097
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-LD4-5STD-35-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

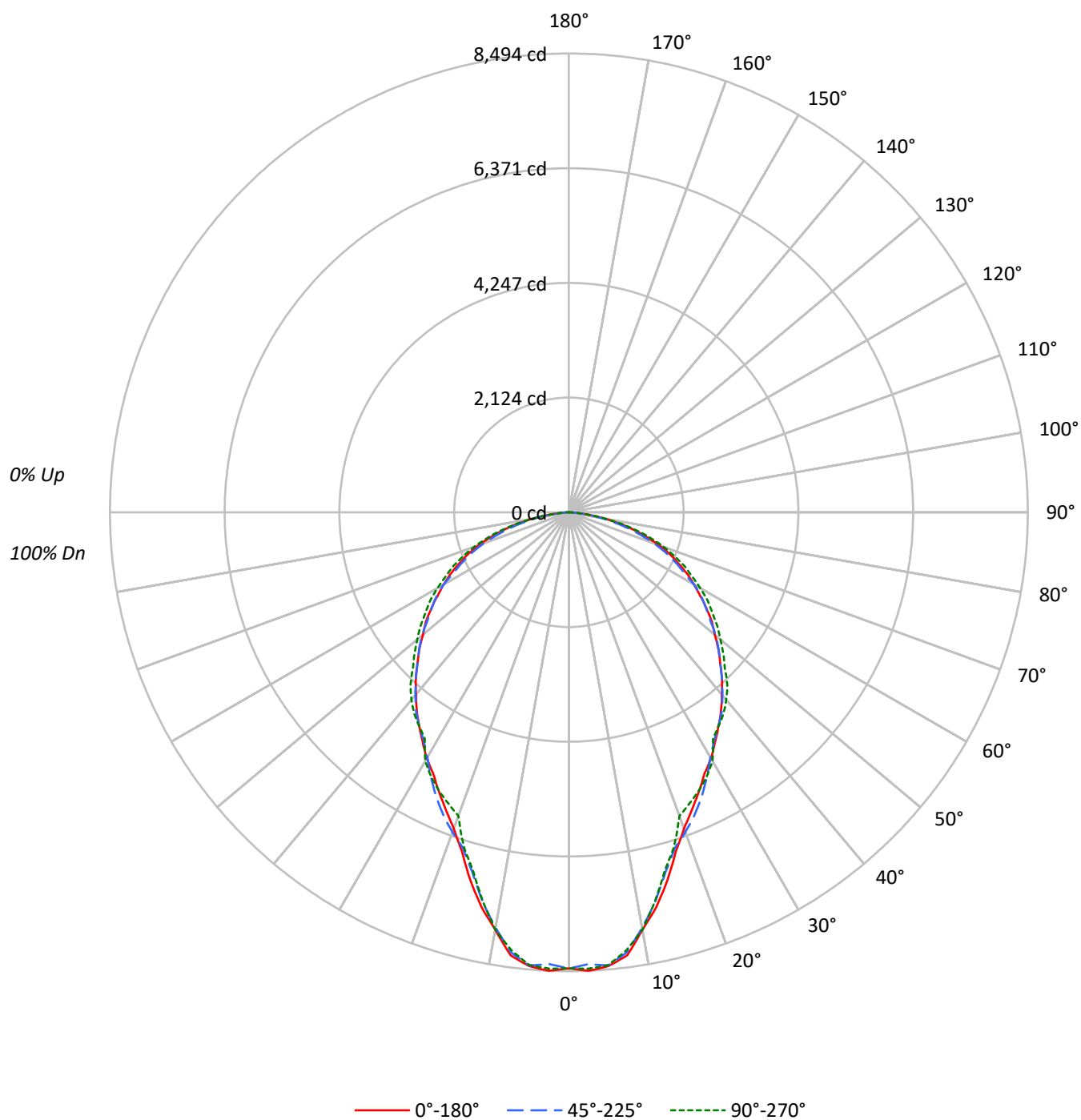
Lumens per Lamp: N/A
Luminaire Lumens: 18053.1 lumens
Efficiency: N/A
Efficacy: 108.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 166.5
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°	11358	11358	11358
5°	11389	11372	11360
10°	10718	10670	10712
15°	9820	9606	9551
20°	8919	9020	8561
25°	8459	8628	8446
30°	8170	8136	8259
35°	7931	7931	7931
40°	7733	7764	7957
45°	7543	7534	7768
50°	7379	7434	7663
55°	7301	7270	7599
60°	7206	7194	7560
65°	7114	6890	7519
70°	6977	6580	7322
75°	6458	5842	6778
80°	5238	4762	5374
85°	3321	2981	2915



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	784.0	4.3
10°-20°	1960.1	10.9
20°-30°	2647.1	14.7
30°-40°	3031.4	16.8
40°-50°	3105.1	17.2
50°-60°	2817.4	15.6
60°-70°	2198.9	12.2
70°-80°	1247.2	6.9
80°-90°	261.8	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°	5391.3	29.9
0°-40°	8422.6	46.7
0°-60°	14345.2	79.5
0°-90°	18053.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	18053.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8442	8442	8442	8442	8442	
5°	8433	8336	8420	8437	8411	788
15°	7050	7072	6896	6931	6857	1970
25°	5698	5772	5812	5672	5689	2629
35°	4829	4838	4829	4833	4829	3025
45°	3964	3995	3960	4122	4082	3065
55°	3112	3108	3099	3209	3240	2781
65°	2234	2186	2164	2265	2362	2214
75°	1242	1150	1124	1190	1304	1300
85°	215	193	193	180	189	284
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	8441.5	8441.5	8441.5	8441.5	8441.5
2.5°	8494.2	8428.3	8371.2	8463.4	8454.7
5°	8432.7	8336.1	8419.5	8437.1	8410.8
7.5°	8270.3	8208.8	8213.2	8178.1	8173.7
10°	7844.5	7879.6	7809.4	7870.8	7840.1
12.5°	7480.1	7502.1	7379.2	7405.5	7370.4
15°	7049.9	7071.9	6896.3	6931.4	6856.8
17.5°	6580.2	6659.2	6514.4	6558.3	6479.3
20°	6229.0	6294.9	6299.3	6229.0	5978.8
22.5°	5952.5	6018.3	6071.0	5860.3	5834.0
25°	5697.9	5772.5	5812.0	5671.6	5689.1
27.5°	5443.3	5526.7	5526.7	5557.4	5517.9
30°	5258.9	5294.0	5237.0	5351.1	5316.0
32.5°	5039.4	5052.6	5004.3	5087.7	4964.8
35°	4828.7	4837.5	4828.7	4833.1	4828.7
37.5°	4626.8	4604.8	4644.4	4618.0	4701.4
40°	4402.9	4402.9	4420.5	4464.4	4530.2
42.5°	4196.6	4214.2	4192.2	4315.1	4341.5
45°	3963.9	3994.7	3959.6	4122.0	4082.5
47.5°	3753.2	3766.4	3757.6	3867.4	3876.1
50°	3525.0	3542.5	3551.3	3647.9	3661.0
52.5°	3336.2	3331.8	3301.1	3441.6	3463.5
55°	3112.3	3107.9	3099.2	3208.9	3239.6
57.5°	2884.1	2888.5	2910.4	2971.9	3046.5
60°	2677.7	2655.8	2673.4	2748.0	2809.4
62.5°	2467.0	2427.5	2388.0	2510.9	2568.0
65°	2234.4	2186.1	2164.1	2265.1	2361.7
67.5°	2019.3	1940.3	1927.1	1997.3	2111.5
70°	1773.5	1676.9	1672.5	1725.2	1861.3
72.5°	1501.3	1417.9	1395.9	1466.2	1589.1
75°	1242.3	1150.1	1123.8	1189.6	1303.8
77.5°	961.4	886.7	869.2	904.3	996.5
80°	676.0	632.1	614.6	627.7	693.6
82.5°	425.8	395.1	386.3	381.9	417.0
85°	215.1	193.1	193.1	180.0	188.8
87.5°	65.8	61.5	57.1	43.9	48.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)