

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: P487105

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-6HI-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: P487105
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-LD4-6HI-27-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

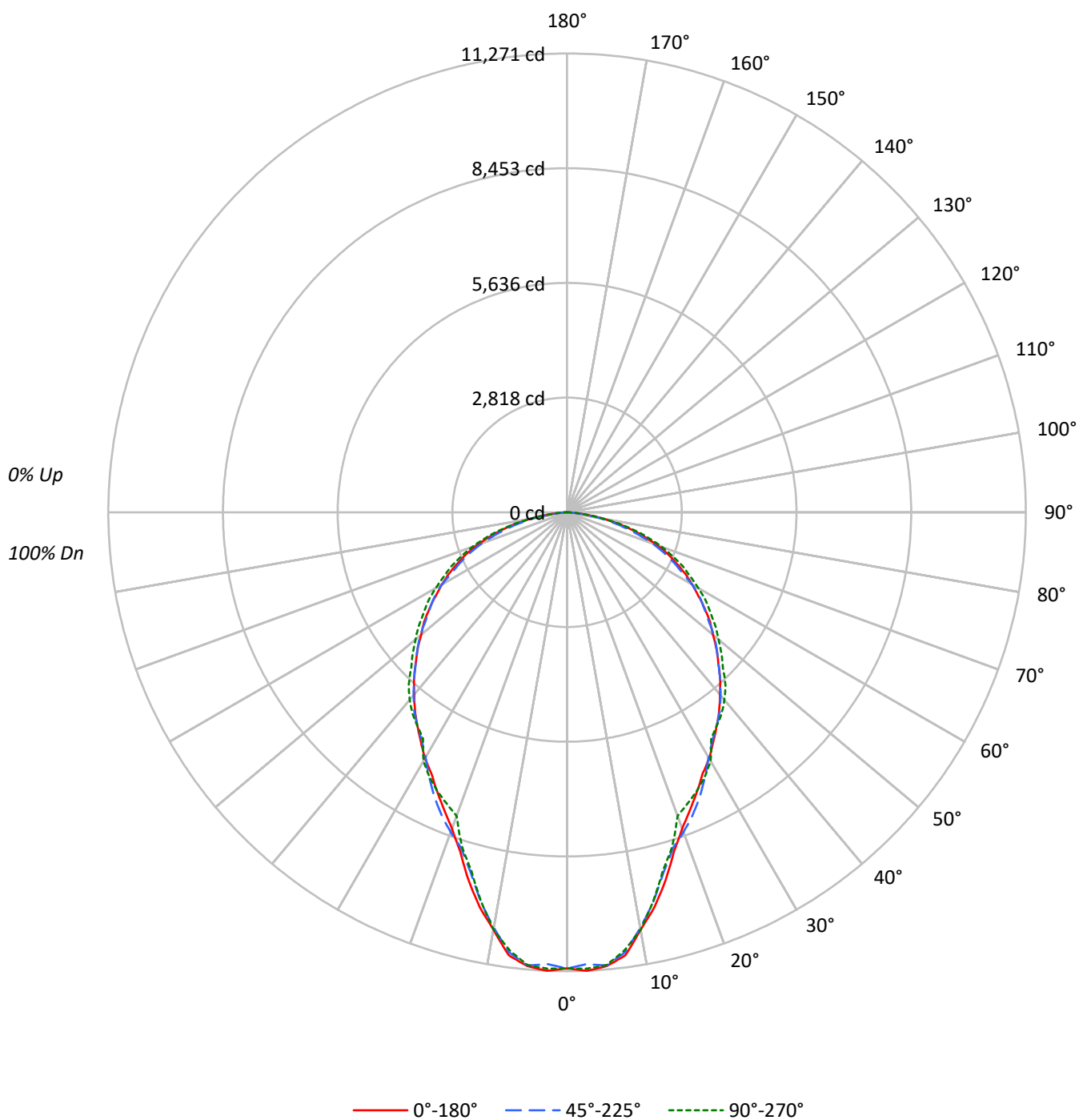
Lumens per Lamp: N/A
Luminaire Lumens: 23955.0 lumens
Efficiency: N/A
Efficacy: 90.7 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 264
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°	15071	15071	15071
5°	15113	15089	15074
10°	14221	14158	14213
15°	13031	12747	12674
20°	11835	11968	11359
25°	11224	11449	11207
30°	10842	10796	10959
35°	10524	10524	10524
40°	10261	10302	10558
45°	10008	9997	10308
50°	9791	9864	10169
55°	9688	9647	10084
60°	9562	9546	10032
65°	9439	9142	9977
70°	9257	8731	9716
75°	8569	7752	8994
80°	6950	6319	7131
85°	4406	3957	3867



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1040.4	4.3
10°-20°	2600.9	10.9
20°-30°	3512.5	14.7
30°-40°	4022.4	16.8
40°-50°	4120.2	17.2
50°-60°	3738.5	15.6
60°-70°	2917.8	12.2
70°-80°	1654.9	6.9
80°-90°	347.4	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°	7153.8	29.9
0°-40°	11176.2	46.7
0°-60°	19034.9	79.5
0°-90°	23955.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	23955.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	11201	11201	11201	11201	11201	
5°	11190	11061	11172	11195	11160	###
15°	9355	9384	9151	9197	9098	2614
25°	7561	7660	7712	7526	7549	3489
35°	6407	6419	6407	6413	6407	4014
45°	5260	5301	5254	5470	5417	4067
55°	4130	4124	4112	4258	4299	3691
65°	2965	2901	2872	3006	3134	2938
75°	1648	1526	1491	1578	1730	1724
85°	285	256	256	239	250	377
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	11201.2	11201.2	11201.2	11201.2	11201.2
2.5°	11271.1	11183.7	11108.0	11230.3	11218.6
5°	11189.5	11061.4	11172.0	11195.3	11160.4
7.5°	10974.0	10892.4	10898.3	10851.7	10845.8
10°	10409.0	10455.6	10362.4	10443.9	10403.2
12.5°	9925.5	9954.6	9791.6	9826.5	9779.9
15°	9354.7	9383.8	9150.8	9197.4	9098.4
17.5°	8731.4	8836.3	8644.1	8702.3	8597.5
20°	8265.4	8352.8	8358.6	8265.4	7933.4
22.5°	7898.5	7985.9	8055.7	7776.2	7741.2
25°	7560.6	7659.7	7712.1	7525.7	7549.0
27.5°	7222.8	7333.5	7333.5	7374.2	7321.8
30°	6978.2	7024.8	6949.0	7100.5	7053.9
32.5°	6686.9	6704.4	6640.3	6751.0	6587.9
35°	6407.3	6419.0	6407.3	6413.1	6407.3
37.5°	6139.4	6110.3	6162.7	6127.7	6238.4
40°	5842.3	5842.3	5865.6	5923.9	6011.2
42.5°	5568.5	5591.8	5562.7	5725.8	5760.8
45°	5259.8	5300.6	5254.0	5469.5	5417.1
47.5°	4980.2	4997.7	4986.1	5131.7	5143.3
50°	4677.3	4700.6	4712.3	4840.4	4857.9
52.5°	4426.9	4421.1	4380.3	4566.7	4595.8
55°	4129.8	4124.0	4112.3	4258.0	4298.7
57.5°	3826.9	3832.7	3861.9	3943.4	4042.4
60°	3553.2	3524.0	3547.3	3646.3	3727.9
62.5°	3273.6	3221.1	3168.7	3331.8	3407.5
65°	2964.8	2900.8	2871.6	3005.6	3133.8
67.5°	2679.4	2574.6	2557.1	2650.3	2801.7
70°	2353.2	2225.1	2219.3	2289.2	2469.7
72.5°	1992.1	1881.4	1852.3	1945.5	2108.6
75°	1648.4	1526.1	1491.2	1578.5	1730.0
77.5°	1275.6	1176.6	1153.3	1199.9	1322.2
80°	897.0	838.8	815.5	833.0	920.3
82.5°	565.0	524.2	512.6	506.8	553.4
85°	285.4	256.3	256.3	238.8	250.5
87.5°	87.4	81.5	75.7	58.2	64.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)