

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: P487037

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-4HI-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: P487037
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-LD4-4HI-35-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

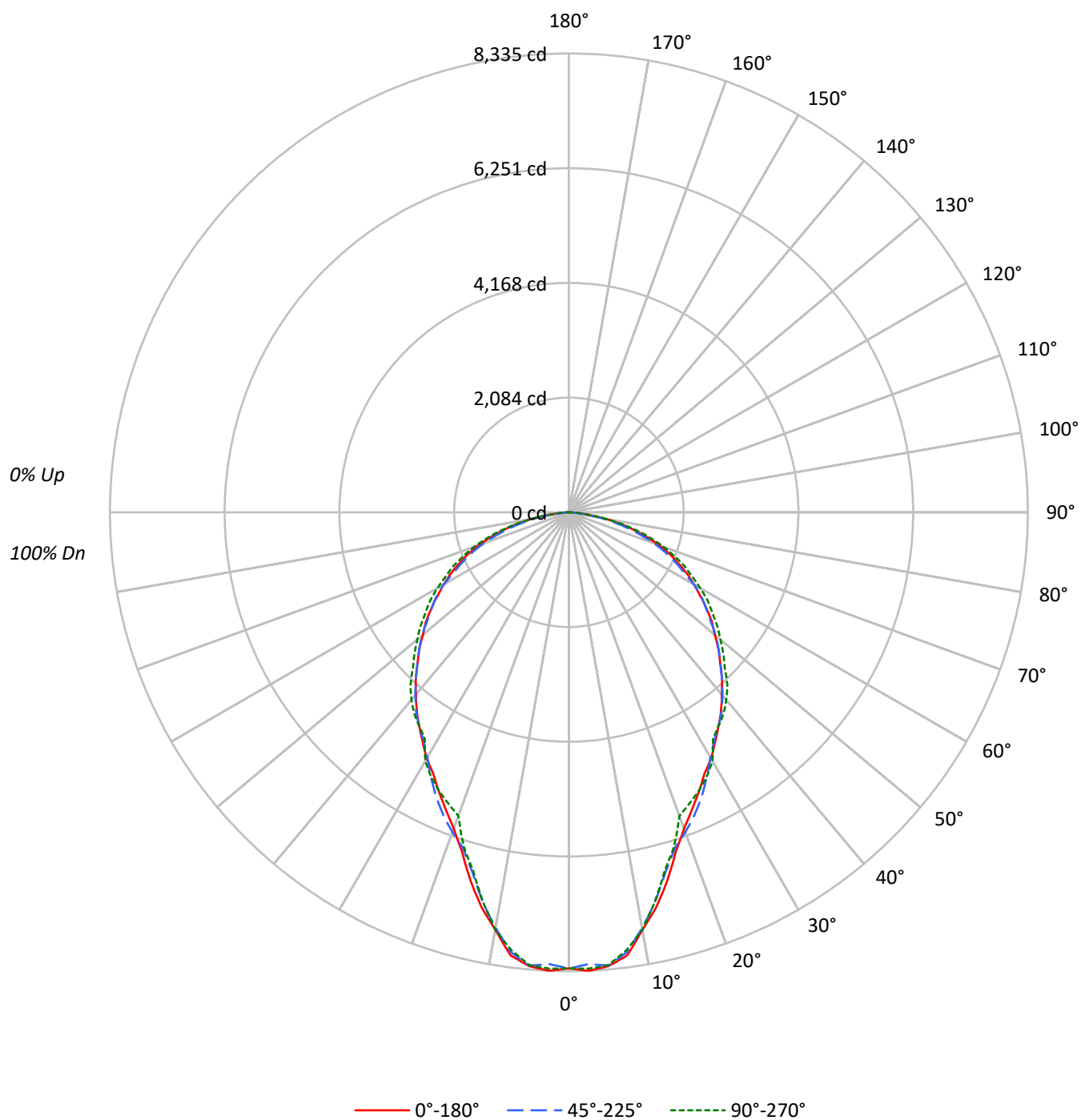
Lumens per Lamp: N/A
Luminaire Lumens: 17714.8 lumens
Efficiency: N/A
Efficacy: 100.7 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 176
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°	11145	11145	11145
5°	11176	11159	11147
10°	10517	10470	10511
15°	9636	9426	9372
20°	8752	8850	8400
25°	8300	8467	8288
30°	8017	7984	8104
35°	7783	7783	7783
40°	7588	7619	7808
45°	7401	7393	7623
50°	7240	7294	7520
55°	7164	7134	7457
60°	7071	7059	7418
65°	6980	6761	7378
70°	6846	6456	7185
75°	6337	5732	6651
80°	5140	4672	5274
85°	3259	2925	2859



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	769.3	4.3
10°-20°	1923.4	10.9
20°-30°	2597.5	14.7
30°-40°	2974.5	16.8
40°-50°	3046.9	17.2
50°-60°	2764.6	15.6
60°-70°	2157.7	12.2
70°-80°	1223.8	6.9
80°-90°	256.9	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°	5290.3	29.9
0°-40°	8264.8	46.7
0°-60°	14076.3	79.5
0°-90°	17714.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	17714.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8283	8283	8283	8283	8283	
5°	8275	8180	8262	8279	8253	773
15°	6918	6939	6767	6802	6728	1933
25°	5591	5664	5703	5565	5582	2580
35°	4738	4747	4738	4742	4738	2968
45°	3890	3920	3885	4045	4006	3007
55°	3054	3050	3041	3149	3179	2729
65°	2192	2145	2124	2223	2317	2173
75°	1219	1129	1103	1167	1279	1275
85°	211	190	190	177	185	279
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	8283.3	8283.3	8283.3	8283.3	8283.3
2.5°	8335.0	8270.4	8214.4	8304.8	8296.2
5°	8274.7	8179.9	8261.8	8279.0	8253.1
7.5°	8115.3	8055.0	8059.3	8024.8	8020.5
10°	7697.5	7731.9	7663.0	7723.3	7693.2
12.5°	7340.0	7361.5	7240.9	7266.7	7232.3
15°	6917.8	6939.4	6767.1	6801.5	6728.3
17.5°	6456.9	6534.5	6392.3	6435.4	6357.8
20°	6112.3	6176.9	6181.2	6112.3	5866.8
22.5°	5841.0	5905.6	5957.3	5750.5	5724.6
25°	5591.1	5664.3	5703.1	5565.3	5582.5
27.5°	5341.3	5423.1	5423.1	5453.3	5414.5
30°	5160.4	5194.8	5138.8	5250.8	5216.4
32.5°	4945.0	4957.9	4910.5	4992.4	4871.8
35°	4738.2	4746.8	4738.2	4742.5	4738.2
37.5°	4540.1	4518.6	4557.3	4531.5	4613.3
40°	4320.4	4320.4	4337.6	4380.7	4445.3
42.5°	4118.0	4135.2	4113.6	4234.3	4260.1
45°	3889.7	3919.8	3885.4	4044.7	4006.0
47.5°	3682.9	3695.8	3687.2	3794.9	3803.5
50°	3458.9	3476.1	3484.8	3579.5	3592.4
52.5°	3273.7	3269.4	3239.2	3377.1	3398.6
55°	3054.0	3049.7	3041.1	3148.8	3178.9
57.5°	2830.0	2834.3	2855.9	2916.2	2989.4
60°	2627.6	2606.0	2623.3	2696.5	2756.8
62.5°	2420.8	2382.0	2343.3	2463.9	2519.9
65°	2192.5	2145.1	2123.6	2222.7	2317.4
67.5°	1981.4	1903.9	1891.0	1959.9	2071.9
70°	1740.2	1645.5	1641.2	1692.8	1826.4
72.5°	1473.2	1391.3	1369.8	1438.7	1559.3
75°	1219.0	1128.6	1102.7	1167.3	1279.3
77.5°	943.3	870.1	852.9	887.3	977.8
80°	663.4	620.3	603.0	616.0	680.6
82.5°	417.8	387.7	379.1	374.8	409.2
85°	211.1	189.5	189.5	176.6	185.2
87.5°	64.6	60.3	56.0	43.1	47.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)