

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: P487112

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-6HI-50-120-EDD-90**

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: P487112
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-50-120-EDD-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

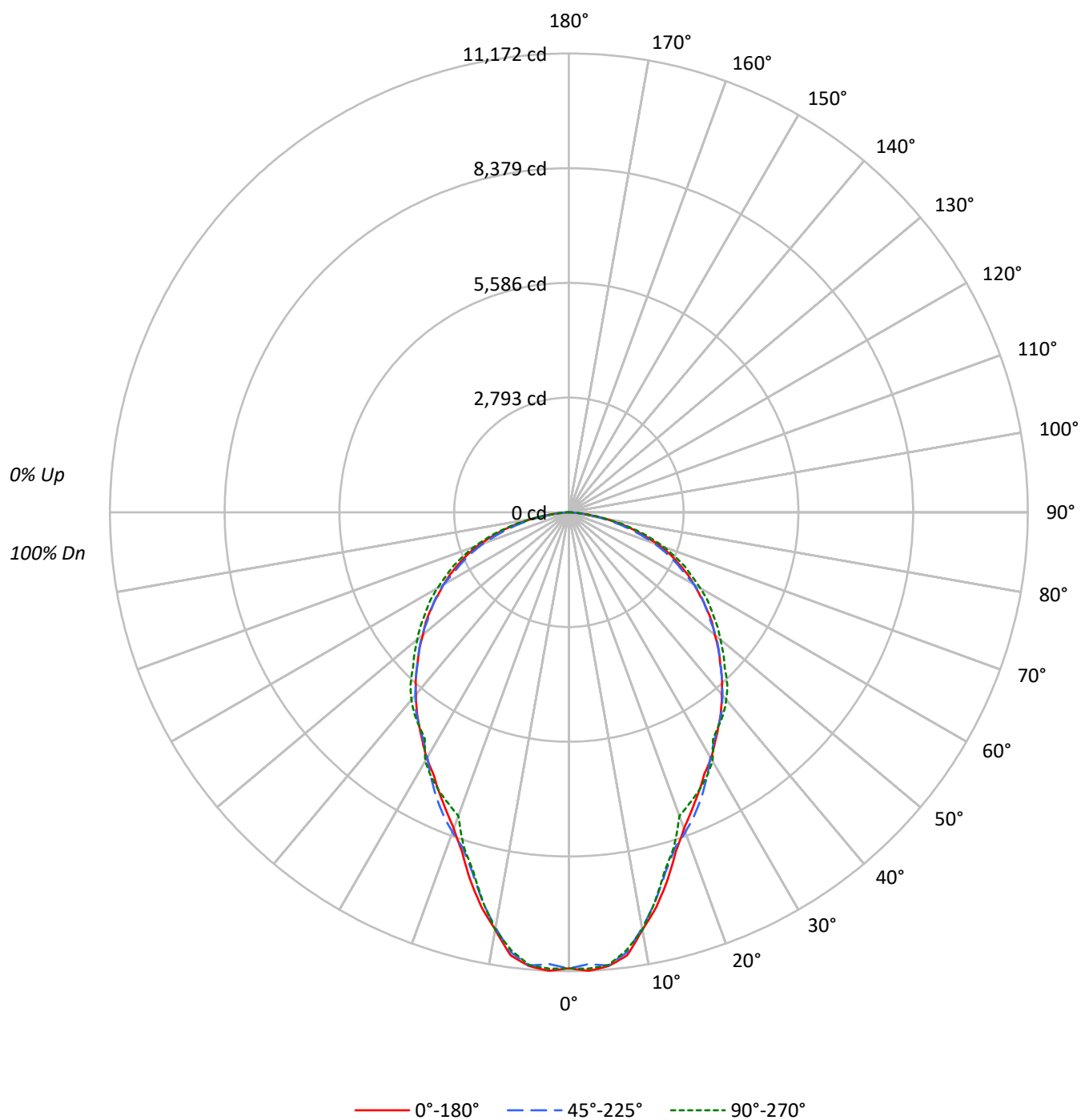
Lumens per Lamp: N/A
Luminaire Lumens: 23745.1 lumens
Efficiency: N/A
Efficacy: 89.9 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	14939	14939	14939
5°	14981	14957	14941
10°	14097	14034	14089
15°	12916	12635	12563
20°	11731	11863	11260
25°	11126	11349	11109
30°	10747	10702	10863
35°	10432	10432	10432
40°	10172	10212	10466
45°	9921	9910	10217
50°	9705	9777	10079
55°	9603	9562	9996
60°	9478	9462	9944
65°	9357	9062	9890
70°	9176	8654	9631
75°	8494	7684	8915
80°	6890	6263	7069
85°	4367	3921	3833



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1031.2	4.3
10°-20°	2578.1	10.9
20°-30°	3481.7	14.7
30°-40°	3987.1	16.8
40°-50°	4084.1	17.2
50°-60°	3705.8	15.6
60°-70°	2892.3	12.2
70°-80°	1640.4	6.9
80°-90°	344.3	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°	7091.1	29.9
0°-40°	11078.2	46.7
0°-60°	18868.1	79.5
0°-90°	23745.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	23745.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	11103	11103	11103	11103	11103	
5°	11092	10964	11074	11097	11063	###
15°	9273	9302	9071	9117	9019	2592
25°	7494	7592	7644	7460	7483	3458
35°	6351	6363	6351	6357	6351	3978
45°	5214	5254	5208	5422	5370	4031
55°	4094	4088	4076	4221	4261	3658
65°	2939	2875	2846	2979	3106	2913
75°	1634	1513	1478	1565	1715	1709
85°	283	254	254	237	248	374
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	11103.0	11103.0	11103.0	11103.0	11103.0
2.5°	11172.3	11085.7	11010.6	11131.9	11120.3
5°	11091.5	10964.4	11074.1	11097.2	11062.6
7.5°	10877.8	10797.0	10802.8	10756.6	10750.8
10°	10317.8	10364.0	10271.6	10352.4	10312.0
12.5°	9838.6	9867.4	9705.8	9740.4	9694.2
15°	9272.7	9301.6	9070.6	9116.8	9018.7
17.5°	8654.9	8758.9	8568.3	8626.1	8522.1
20°	8193.0	8279.6	8285.4	8193.0	7863.9
22.5°	7829.3	7915.9	7985.2	7708.0	7673.4
25°	7494.4	7592.5	7644.5	7459.7	7482.8
27.5°	7159.5	7269.2	7269.2	7309.6	7257.7
30°	6917.0	6963.2	6888.1	7038.3	6992.1
32.5°	6628.3	6645.6	6582.1	6691.8	6530.2
35°	6351.2	6362.7	6351.2	6357.0	6351.2
37.5°	6085.6	6056.7	6108.7	6074.0	6183.7
40°	5791.1	5791.1	5814.2	5872.0	5958.6
42.5°	5519.8	5542.8	5514.0	5675.6	5710.3
45°	5213.7	5254.2	5208.0	5421.6	5369.6
47.5°	4936.6	4953.9	4942.4	5086.7	5098.3
50°	4636.4	4659.5	4671.0	4798.0	4815.3
52.5°	4388.1	4382.3	4341.9	4526.7	4555.5
55°	4093.6	4087.8	4076.3	4220.6	4261.1
57.5°	3793.4	3799.2	3828.0	3908.9	4007.0
60°	3522.0	3493.1	3516.2	3614.4	3695.2
62.5°	3244.9	3192.9	3140.9	3302.6	3377.7
65°	2938.9	2875.4	2846.5	2979.3	3106.3
67.5°	2655.9	2552.0	2534.7	2627.1	2777.2
70°	2332.6	2205.6	2199.8	2269.1	2448.1
72.5°	1974.6	1864.9	1836.1	1928.4	2090.1
75°	1634.0	1512.7	1478.1	1564.7	1714.8
77.5°	1264.5	1166.3	1143.2	1189.4	1310.7
80°	889.2	831.4	808.3	825.7	912.3
82.5°	560.1	519.6	508.1	502.3	548.5
85°	282.9	254.0	254.0	236.7	248.3
87.5°	86.6	80.8	75.1	57.7	63.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)