

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: P485778

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-5HI-40-120-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: P485778
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-24-2-INS-89BC-LD4-5HI-40-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

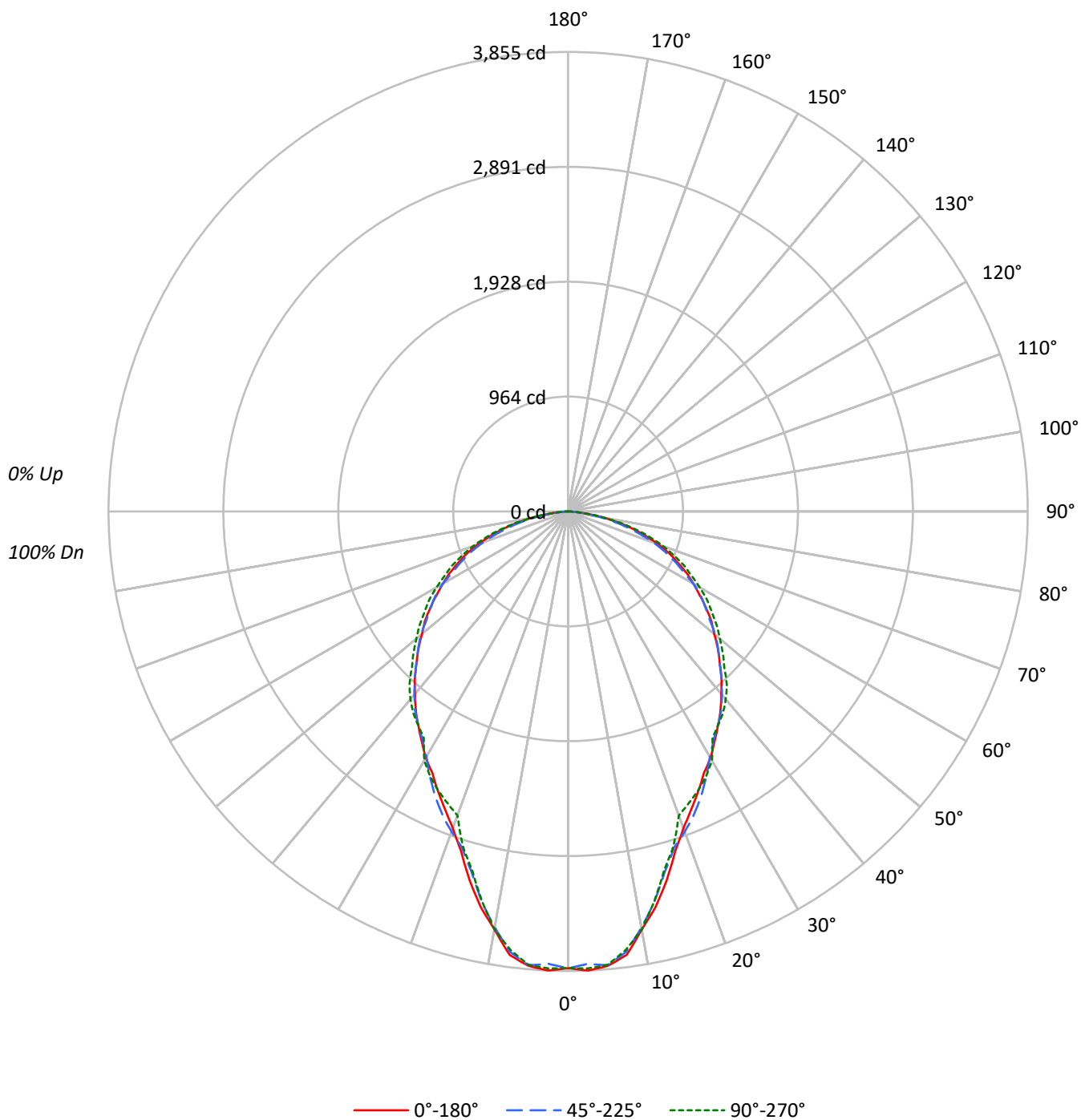
Lumens per Lamp: N/A
Luminaire Lumens: 8192.7 lumens
Efficiency: N/A
Efficacy: 74.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 110
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°	10309	10309	10309
5°	10337	10321	10310
10°	9727	9684	9722
15°	8913	8719	8669
20°	8095	8186	7770
25°	7678	7831	7666
30°	7416	7385	7496
35°	7199	7199	7199
40°	7019	7047	7222
45°	6846	6838	7051
50°	6697	6747	6955
55°	6626	6598	6898
60°	6540	6529	6862
65°	6457	6253	6825
70°	6332	5972	6646
75°	5862	5303	6152
80°	4754	4322	4878
85°	3013	2708	2646



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	355.8	4.3
10°-20°	889.5	10.9
20°-30°	1201.3	14.7
30°-40°	1375.7	16.8
40°-50°	1409.1	17.2
50°-60°	1278.6	15.6
60°-70°	997.9	12.2
70°-80°	566.0	6.9
80°-90°	118.8	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°	2446.6	29.9
0°-40°	3822.3	46.7
0°-60°	6510.0	79.5
0°-90°	8192.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8192.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3831	3831	3831	3831	3831	
5°	3827	3783	3821	3829	3817	357
15°	3199	3209	3130	3146	3112	894
25°	2586	2620	2638	2574	2582	1193
35°	2191	2195	2191	2193	2191	1373
45°	1799	1813	1797	1871	1853	1391
55°	1412	1410	1406	1456	1470	1262
65°	1014	992	982	1028	1072	1005
75°	564	522	510	540	592	590
85°	98	88	88	82	86	129
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3830.8	3830.8	3830.8	3830.8	3830.8
2.5°	3854.7	3824.9	3799.0	3840.8	3836.8
5°	3826.9	3783.0	3820.9	3828.8	3816.9
7.5°	3753.1	3725.3	3727.2	3711.3	3709.3
10°	3559.9	3575.8	3544.0	3571.9	3557.9
12.5°	3394.6	3404.5	3348.7	3360.7	3344.8
15°	3199.3	3209.3	3129.6	3145.6	3111.7
17.5°	2986.2	3022.0	2956.3	2976.2	2940.4
20°	2826.8	2856.7	2858.7	2826.8	2713.3
22.5°	2701.3	2731.2	2755.1	2659.5	2647.5
25°	2585.8	2619.6	2637.6	2573.8	2581.8
27.5°	2470.2	2508.1	2508.1	2522.0	2504.1
30°	2386.6	2402.5	2376.6	2428.4	2412.5
32.5°	2286.9	2292.9	2271.0	2308.9	2253.1
35°	2191.3	2195.3	2191.3	2193.3	2191.3
37.5°	2099.7	2089.7	2107.7	2095.7	2133.6
40°	1998.1	1998.1	2006.1	2026.0	2055.9
42.5°	1904.5	1912.4	1902.5	1958.3	1970.2
45°	1798.9	1812.8	1796.9	1870.6	1852.7
47.5°	1703.3	1709.2	1705.3	1755.1	1759.0
50°	1599.7	1607.6	1611.6	1655.4	1661.4
52.5°	1514.0	1512.0	1498.1	1561.8	1571.8
55°	1412.4	1410.4	1406.4	1456.2	1470.2
57.5°	1308.8	1310.8	1320.8	1348.7	1382.5
60°	1215.2	1205.2	1213.2	1247.1	1275.0
62.5°	1119.6	1101.6	1083.7	1139.5	1165.4
65°	1014.0	992.1	982.1	1027.9	1071.8
67.5°	916.4	880.5	874.5	906.4	958.2
70°	804.8	761.0	759.0	782.9	844.7
72.5°	681.3	643.5	633.5	665.4	721.1
75°	563.8	521.9	510.0	539.9	591.7
77.5°	436.3	402.4	394.4	410.4	452.2
80°	306.8	286.9	278.9	284.9	314.8
82.5°	193.2	179.3	175.3	173.3	189.3
85°	97.6	87.7	87.7	81.7	85.7
87.5°	29.9	27.9	25.9	19.9	21.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)