

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: P485759

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-4STD-20-120-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: P485759
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-LD4-4STD-20-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

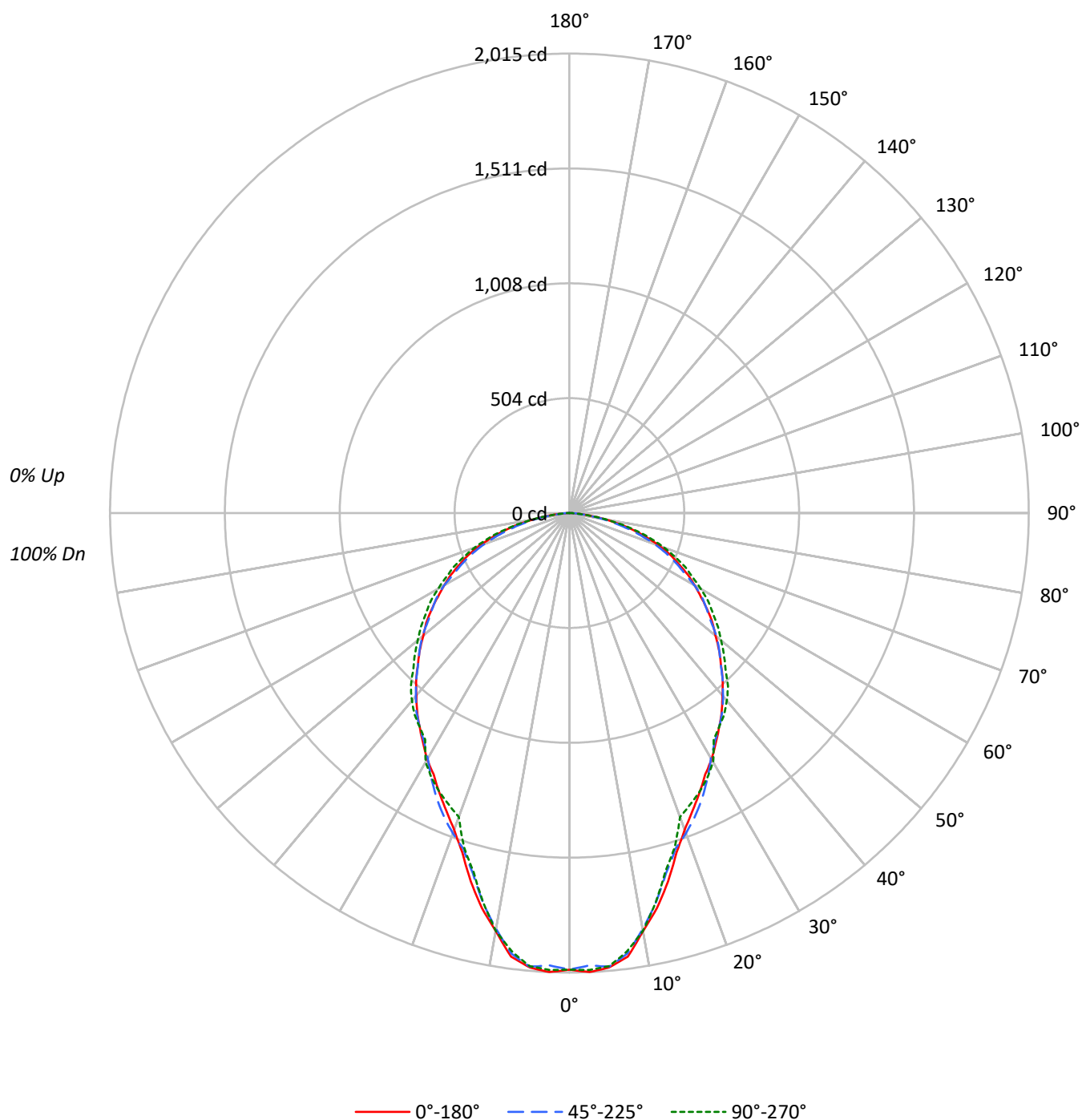
Lumens per Lamp: N/A
Luminaire Lumens: 4281.7 lumens
Efficiency: N/A
Efficacy: 64.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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°	5388	5388	5388
5°	5403	5394	5388
10°	5084	5061	5081
15°	4658	4557	4530
20°	4231	4278	4061
25°	4013	4093	4006
30°	3876	3860	3918
35°	3762	3762	3762
40°	3668	3683	3774
45°	3578	3574	3685
50°	3500	3526	3635
55°	3463	3448	3605
60°	3418	3412	3586
65°	3374	3268	3566
70°	3309	3121	3473
75°	3063	2771	3215
80°	2484	2259	2549
85°	1575	1414	1383



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	186.0	4.3
10°-20°	464.9	10.9
20°-30°	627.8	14.7
30°-40°	718.9	16.8
40°-50°	736.4	17.2
50°-60°	668.2	15.6
60°-70°	521.5	12.2
70°-80°	295.8	6.9
80°-90°	62.1	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°	1278.7	29.9
0°-40°	1997.6	46.7
0°-60°	3402.3	79.5
0°-90°	4281.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4281.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2002	2002	2002	2002	2002	
5°	2000	1977	1997	2001	1995	187
15°	1672	1677	1636	1644	1626	467
25°	1351	1369	1378	1345	1349	624
35°	1145	1147	1145	1146	1145	717
45°	940	947	939	978	968	727
55°	738	737	735	761	768	660
65°	530	518	513	537	560	525
75°	295	273	266	282	309	308
85°	51	46	46	43	45	67
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2002.1	2002.1	2002.1	2002.1	2002.1
2.5°	2014.6	1999.0	1985.4	2007.3	2005.2
5°	2000.0	1977.1	1996.9	2001.0	1994.8
7.5°	1961.5	1946.9	1947.9	1939.6	1938.6
10°	1860.5	1868.8	1852.2	1866.7	1859.5
12.5°	1774.1	1779.3	1750.1	1756.4	1748.1
15°	1672.1	1677.3	1635.6	1643.9	1626.2
17.5°	1560.6	1579.4	1545.0	1555.4	1536.7
20°	1477.4	1493.0	1494.0	1477.4	1418.0
22.5°	1411.8	1427.4	1439.9	1389.9	1383.7
25°	1351.4	1369.1	1378.5	1345.1	1349.3
27.5°	1291.0	1310.8	1310.8	1318.1	1308.7
30°	1247.3	1255.6	1242.1	1269.1	1260.8
32.5°	1195.2	1198.3	1186.9	1206.7	1177.5
35°	1145.2	1147.3	1145.2	1146.3	1145.2
37.5°	1097.3	1092.1	1101.5	1095.3	1115.0
40°	1044.3	1044.3	1048.4	1058.8	1074.4
42.5°	995.3	999.5	994.3	1023.4	1029.7
45°	940.1	947.4	939.1	977.6	968.2
47.5°	890.2	893.3	891.2	917.2	919.3
50°	836.0	840.2	842.3	865.2	868.3
52.5°	791.3	790.2	782.9	816.2	821.4
55°	738.2	737.1	735.0	761.1	768.4
57.5°	684.0	685.1	690.3	704.8	722.5
60°	635.1	629.9	634.0	651.7	666.3
62.5°	585.1	575.7	566.4	595.5	609.1
65°	529.9	518.5	513.3	537.2	560.1
67.5°	478.9	460.2	457.1	473.7	500.8
70°	420.6	397.7	396.7	409.2	441.4
72.5°	356.1	336.3	331.1	347.7	376.9
75°	294.6	272.8	266.5	282.1	309.2
77.5°	228.0	210.3	206.1	214.5	236.3
80°	160.3	149.9	145.8	148.9	164.5
82.5°	101.0	93.7	91.6	90.6	98.9
85°	51.0	45.8	45.8	42.7	44.8
87.5°	15.6	14.6	13.5	10.4	11.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)