

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: P486974

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-2LO-30-120-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: P486974
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-LD4-2LO-30-120-EDD-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

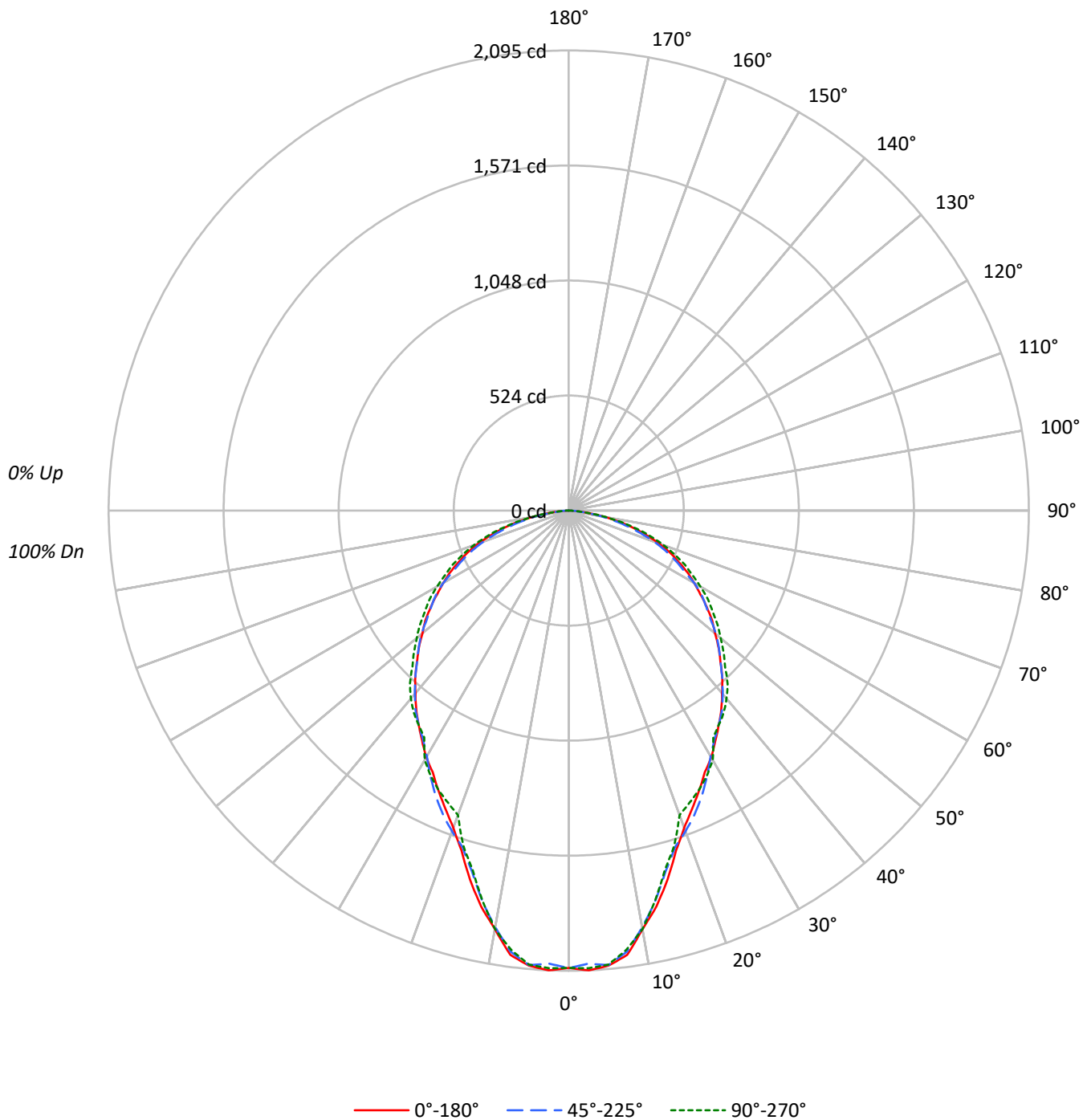
Lumens per Lamp: N/A
Luminaire Lumens: 4452.6 lumens
Efficiency: N/A
Efficacy: 95.1 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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				10				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84			
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	70			
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60			
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51			
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45			
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39			
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35			
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31			
9	58	44	36	31	56	44	36	31	43	35	30	41	35	30	40	35	30	28			
10	54	41	33	28	53	40	33	28	40	33	28	39	32	28	38	32	28	26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2801	2801	2801
5°	2809	2805	2802
10°	2643	2632	2642
15°	2422	2369	2356
20°	2200	2225	2111
25°	2086	2128	2083
30°	2015	2007	2037
35°	1956	1956	1956
40°	1907	1915	1962
45°	1860	1858	1916
50°	1820	1833	1890
55°	1801	1793	1874
60°	1777	1774	1865
65°	1755	1699	1855
70°	1721	1623	1806
75°	1593	1441	1672
80°	1292	1175	1326
85°	820	735	719



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	193.4	4.3
10°-20°	483.4	10.9
20°-30°	652.9	14.7
30°-40°	747.7	16.8
40°-50°	765.8	17.2
50°-60°	694.9	15.6
60°-70°	542.4	12.2
70°-80°	307.6	6.9
80°-90°	64.6	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°	1329.7	29.9
0°-40°	2077.4	46.7
0°-60°	3538.1	79.5
0°-90°	4452.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4452.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2082	2082	2082	2082	2082	
5°	2080	2056	2077	2081	2074	194
15°	1739	1744	1701	1710	1691	486
25°	1405	1424	1434	1399	1403	648
35°	1191	1193	1191	1192	1191	746
45°	978	985	977	1017	1007	756
55°	768	766	764	791	799	686
65°	551	539	534	559	582	546
75°	306	284	277	293	322	321
85°	53	48	48	44	47	70
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2082.0	2082.0	2082.0	2082.0	2082.0
2.5°	2095.0	2078.8	2064.7	2087.4	2085.2
5°	2079.8	2056.0	2076.6	2080.9	2074.4
7.5°	2039.8	2024.6	2025.7	2017.0	2016.0
10°	1934.8	1943.4	1926.1	1941.3	1933.7
12.5°	1844.9	1850.3	1820.0	1826.5	1817.8
15°	1738.8	1744.2	1700.9	1709.6	1691.2
17.5°	1622.9	1642.4	1606.7	1617.5	1598.0
20°	1536.3	1552.6	1553.6	1536.3	1474.6
22.5°	1468.1	1484.4	1497.4	1445.4	1438.9
25°	1405.3	1423.7	1433.5	1398.8	1403.2
27.5°	1342.5	1363.1	1363.1	1370.7	1360.9
30°	1297.1	1305.7	1291.6	1319.8	1311.1
32.5°	1242.9	1246.2	1234.3	1254.8	1224.5
35°	1191.0	1193.1	1191.0	1192.0	1191.0
37.5°	1141.1	1135.7	1145.5	1139.0	1159.6
40°	1085.9	1085.9	1090.3	1101.1	1117.3
42.5°	1035.0	1039.4	1034.0	1064.3	1070.8
45°	977.7	985.2	976.6	1016.6	1006.9
47.5°	925.7	928.9	926.8	953.8	956.0
50°	869.4	873.7	875.9	899.7	903.0
52.5°	822.8	821.8	814.2	848.8	854.2
55°	767.6	766.5	764.4	791.4	799.0
57.5°	711.3	712.4	717.8	733.0	751.4
60°	660.4	655.0	659.4	677.8	692.9
62.5°	608.5	598.7	589.0	619.3	633.4
65°	551.1	539.2	533.8	558.7	582.5
67.5°	498.0	478.5	475.3	492.6	520.8
70°	437.4	413.6	412.5	425.5	459.1
72.5°	370.3	349.7	344.3	361.6	391.9
75°	306.4	283.7	277.2	293.4	321.6
77.5°	237.1	218.7	214.4	223.0	245.8
80°	166.7	155.9	151.6	154.8	171.1
82.5°	105.0	97.4	95.3	94.2	102.9
85°	53.1	47.6	47.6	44.4	46.6
87.5°	16.2	15.2	14.1	10.8	11.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)