

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: P485746

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-4LO-20-120-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: P485746
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-LD4-4LO-20-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

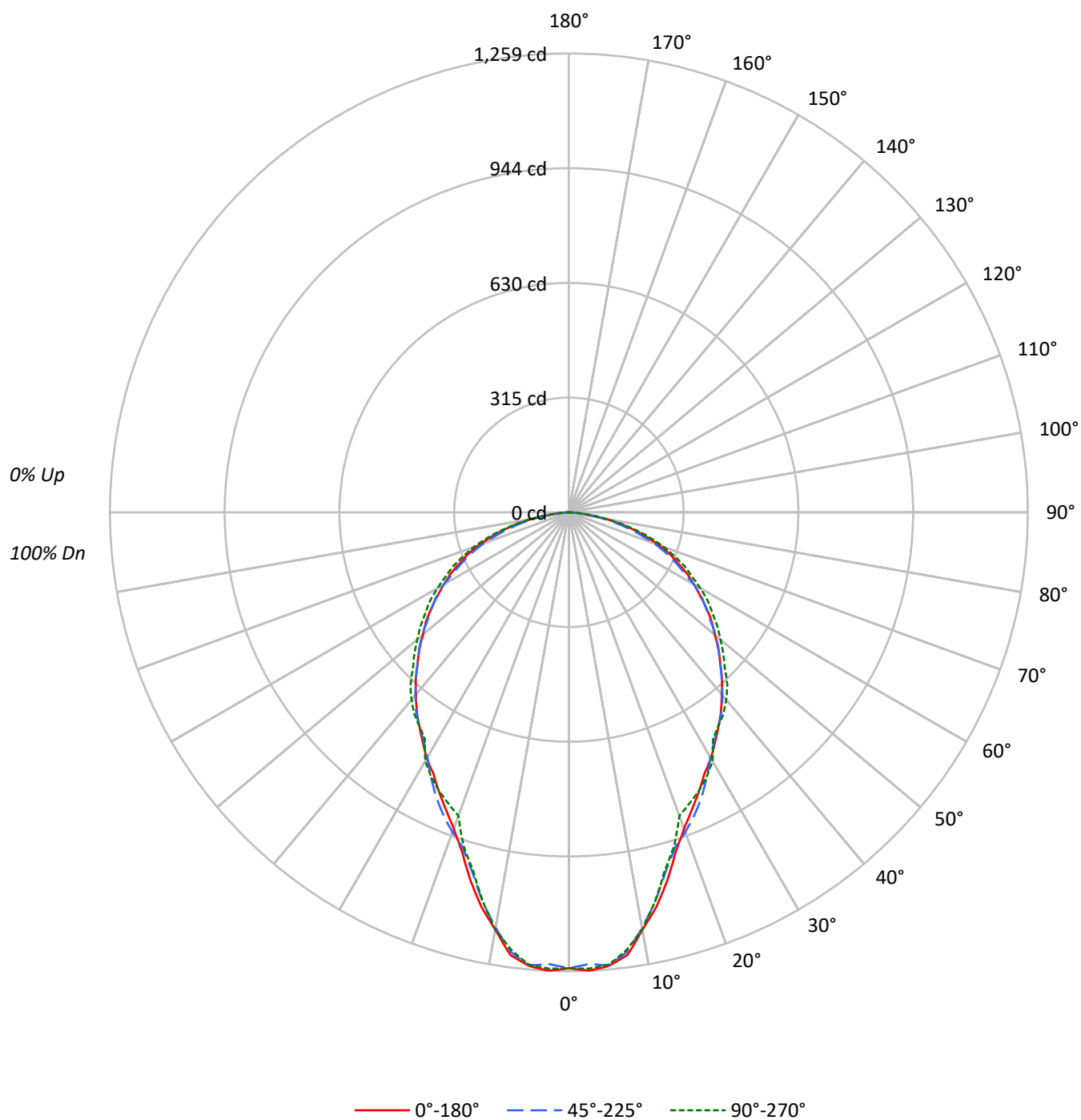
Lumens per Lamp: N/A
Luminaire Lumens: 2675.3 lumens
Efficiency: N/A
Efficacy: 57.2 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	3366	3366	3366
5°	3375	3370	3367
10°	3177	3162	3175
15°	2910	2847	2831
20°	2643	2673	2537
25°	2507	2557	2503
30°	2421	2412	2448
35°	2351	2351	2351
40°	2292	2301	2358
45°	2235	2233	2302
50°	2187	2203	2271
55°	2164	2155	2252
60°	2136	2132	2241
65°	2108	2042	2229
70°	2068	1950	2170
75°	1914	1731	2009
80°	1553	1412	1593
85°	985	883	865



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.2	4.3
10°-20°	290.5	10.9
20°-30°	392.3	14.7
30°-40°	449.2	16.8
40°-50°	460.1	17.2
50°-60°	417.5	15.6
60°-70°	325.9	12.2
70°-80°	184.8	6.9
80°-90°	38.8	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°	798.9	29.9
0°-40°	1248.2	46.7
0°-60°	2125.8	79.5
0°-90°	2675.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2675.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1251	1251	1251	1251	1251	
5°	1250	1235	1248	1250	1246	117
15°	1045	1048	1022	1027	1016	292
25°	844	855	861	840	843	390
35°	716	717	716	716	716	448
45°	587	592	587	611	605	454
55°	461	461	459	476	480	412
65°	331	324	321	336	350	328
75°	184	170	166	176	193	193
85°	32	29	29	27	28	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1250.9	1250.9	1250.9	1250.9	1250.9
2.5°	1258.8	1249.0	1240.5	1254.2	1252.9
5°	1249.6	1235.3	1247.7	1250.3	1246.4
7.5°	1225.6	1216.5	1217.1	1211.9	1211.3
10°	1162.5	1167.7	1157.3	1166.4	1161.8
12.5°	1108.5	1111.7	1093.5	1097.4	1092.2
15°	1044.7	1048.0	1022.0	1027.2	1016.1
17.5°	975.1	986.8	965.4	971.9	960.2
20°	923.1	932.8	933.5	923.1	886.0
22.5°	882.1	891.9	899.7	868.4	864.5
25°	844.4	855.4	861.3	840.5	843.1
27.5°	806.6	819.0	819.0	823.6	817.7
30°	779.3	784.5	776.1	793.0	787.8
32.5°	746.8	748.7	741.6	754.0	735.7
35°	715.6	716.9	715.6	716.2	715.6
37.5°	685.6	682.4	688.2	684.3	696.7
40°	652.5	652.5	655.1	661.6	671.3
42.5°	621.9	624.5	621.2	639.5	643.4
45°	587.4	592.0	586.8	610.8	605.0
47.5°	556.2	558.1	556.8	573.1	574.4
50°	522.4	525.0	526.3	540.6	542.5
52.5°	494.4	493.7	489.2	510.0	513.3
55°	461.2	460.6	459.3	475.5	480.1
57.5°	427.4	428.0	431.3	440.4	451.5
60°	396.8	393.6	396.2	407.2	416.3
62.5°	365.6	359.7	353.9	372.1	380.6
65°	331.1	324.0	320.7	335.7	350.0
67.5°	299.2	287.5	285.6	296.0	312.9
70°	262.8	248.5	247.8	255.7	275.8
72.5°	222.5	210.1	206.9	217.3	235.5
75°	184.1	170.4	166.5	176.3	193.2
77.5°	142.5	131.4	128.8	134.0	147.7
80°	100.2	93.7	91.1	93.0	102.8
82.5°	63.1	58.5	57.2	56.6	61.8
85°	31.9	28.6	28.6	26.7	28.0
87.5°	9.8	9.1	8.5	6.5	7.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)