

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: P486922

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-1HI-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: P486922
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-LD4-1HI-20-120-EDD-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

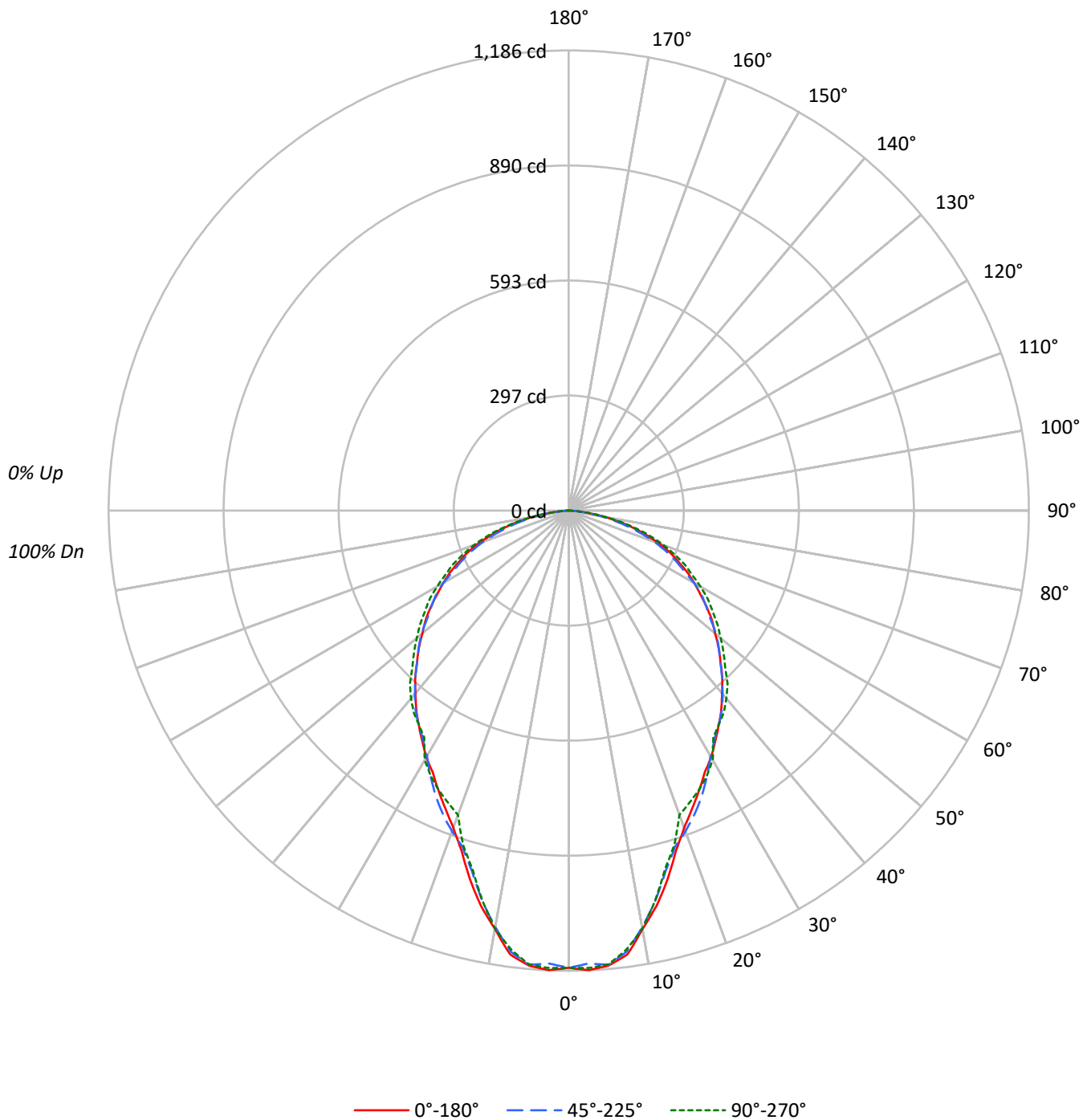
Lumens per Lamp: N/A
Luminaire Lumens: 2519.9 lumens
Efficiency: N/A
Efficacy: 57.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 44
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°	1585	1585	1585
5°	1590	1587	1586
10°	1496	1489	1495
15°	1371	1341	1333
20°	1245	1259	1195
25°	1181	1204	1179
30°	1141	1136	1153
35°	1107	1107	1107
40°	1079	1084	1111
45°	1053	1052	1084
50°	1030	1038	1070
55°	1019	1015	1061
60°	1006	1004	1055
65°	993	962	1050
70°	974	919	1022
75°	901	816	946
80°	731	665	750
85°	463	417	406



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.4	4.3
10°-20°	273.6	10.9
20°-30°	369.5	14.7
30°-40°	423.1	16.8
40°-50°	433.4	17.2
50°-60°	393.3	15.6
60°-70°	306.9	12.2
70°-80°	174.1	6.9
80°-90°	36.5	1.4
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°	752.5	29.9
0°-40°	1175.7	46.7
0°-60°	2002.3	79.5
0°-90°	2519.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2519.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1178	1178	1178	1178	1178	
5°	1177	1164	1175	1178	1174	110
15°	984	987	963	968	957	275
25°	795	806	811	792	794	367
35°	674	675	674	675	674	422
45°	553	558	553	575	570	428
55°	434	434	433	448	452	388
65°	312	305	302	316	330	309
75°	173	160	157	166	182	181
85°	30	27	27	25	26	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1178.3	1178.3	1178.3	1178.3	1178.3
2.5°	1185.6	1176.4	1168.5	1181.3	1180.1
5°	1177.1	1163.6	1175.2	1177.7	1174.0
7.5°	1154.4	1145.8	1146.4	1141.5	1140.9
10°	1095.0	1099.9	1090.1	1098.6	1094.3
12.5°	1044.1	1047.2	1030.0	1033.7	1028.8
15°	984.0	987.1	962.6	967.5	957.1
17.5°	918.5	929.5	909.3	915.4	904.4
20°	869.5	878.7	879.3	869.5	834.5
22.5°	830.9	840.1	847.4	818.0	814.3
25°	795.3	805.7	811.3	791.7	794.1
27.5°	759.8	771.4	771.4	775.7	770.2
30°	734.1	739.0	731.0	746.9	742.0
32.5°	703.4	705.3	698.5	710.2	693.0
35°	674.0	675.2	674.0	674.6	674.0
37.5°	645.8	642.8	648.3	644.6	656.2
40°	614.6	614.6	617.0	623.1	632.3
42.5°	585.8	588.2	585.2	602.3	606.0
45°	553.3	557.6	552.7	575.4	569.8
47.5°	523.9	525.7	524.5	539.8	541.0
50°	492.0	494.5	495.7	509.2	511.0
52.5°	465.7	465.1	460.8	480.4	483.4
55°	434.4	433.8	432.6	447.9	452.2
57.5°	402.6	403.2	406.2	414.8	425.2
60°	373.8	370.7	373.2	383.6	392.1
62.5°	344.4	338.8	333.3	350.5	358.4
65°	311.9	305.1	302.1	316.2	329.7
67.5°	281.9	270.8	269.0	278.8	294.7
70°	247.5	234.1	233.5	240.8	259.8
72.5°	209.6	197.9	194.8	204.7	221.8
75°	173.4	160.5	156.9	166.1	182.0
77.5°	134.2	123.8	121.3	126.2	139.1
80°	94.4	88.2	85.8	87.6	96.8
82.5°	59.4	55.1	53.9	53.3	58.2
85°	30.0	27.0	27.0	25.1	26.3
87.5°	9.2	8.6	8.0	6.1	6.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)