

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: P486941

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-1LO-35-120-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: P486941
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-LD4-1LO-35-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

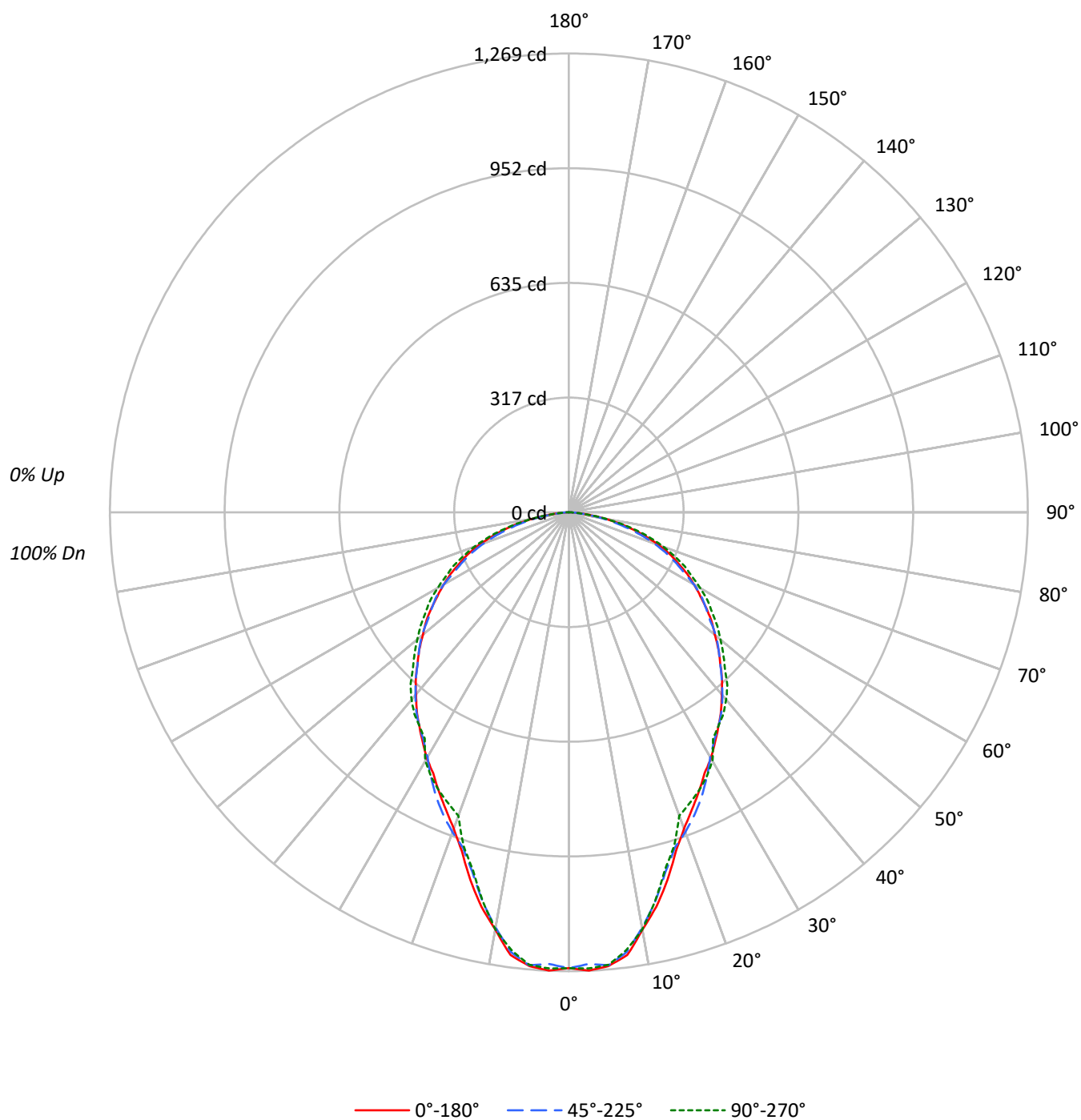
Lumens per Lamp: N/A
Luminaire Lumens: 2696.2 lumens
Efficiency: N/A
Efficacy: 115.2 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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°	1696	1696	1696
5°	1701	1698	1697
10°	1601	1593	1600
15°	1467	1435	1426
20°	1332	1347	1278
25°	1263	1289	1261
30°	1220	1215	1233
35°	1185	1185	1185
40°	1155	1160	1188
45°	1126	1125	1160
50°	1102	1110	1145
55°	1090	1086	1135
60°	1076	1075	1129
65°	1062	1029	1123
70°	1042	983	1094
75°	964	872	1012
80°	783	711	803
85°	496	445	435



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.1	4.3
10°-20°	292.7	10.9
20°-30°	395.3	14.7
30°-40°	452.7	16.8
40°-50°	463.7	17.2
50°-60°	420.8	15.6
60°-70°	328.4	12.2
70°-80°	186.3	6.9
80°-90°	39.1	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°	805.2	29.9
0°-40°	1257.9	46.7
0°-60°	2142.4	79.5
0°-90°	2696.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2696.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1261	1261	1261	1261	1261	
5°	1259	1245	1257	1260	1256	118
15°	1053	1056	1030	1035	1024	294
25°	851	862	868	847	850	393
35°	721	722	721	722	721	452
45°	592	597	591	616	610	458
55°	465	464	463	479	484	415
65°	334	326	323	338	353	331
75°	186	172	168	178	195	194
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°	1260.7	1260.7	1260.7	1260.7	1260.7
2.5°	1268.6	1258.8	1250.2	1264.0	1262.7
5°	1259.4	1245.0	1257.4	1260.1	1256.1
7.5°	1235.2	1226.0	1226.6	1221.4	1220.7
10°	1171.6	1176.8	1166.3	1175.5	1170.9
12.5°	1117.1	1120.4	1102.1	1106.0	1100.8
15°	1052.9	1056.2	1029.9	1035.2	1024.0
17.5°	982.7	994.5	972.9	979.5	967.7
20°	930.3	940.1	940.8	930.3	892.9
22.5°	889.0	898.8	906.7	875.2	871.3
25°	851.0	862.1	868.0	847.0	849.7
27.5°	812.9	825.4	825.4	830.0	824.1
30°	785.4	790.7	782.1	799.2	793.9
32.5°	752.6	754.6	747.4	759.8	741.5
35°	721.2	722.5	721.2	721.8	721.2
37.5°	691.0	687.7	693.6	689.7	702.1
40°	657.6	657.6	660.2	666.7	676.6
42.5°	626.8	629.4	626.1	644.5	648.4
45°	592.0	596.6	591.4	615.6	609.7
47.5°	560.5	562.5	561.2	577.6	578.9
50°	526.4	529.1	530.4	544.8	546.8
52.5°	498.3	497.6	493.0	514.0	517.3
55°	464.8	464.2	462.9	479.2	483.8
57.5°	430.7	431.4	434.7	443.8	455.0
60°	399.9	396.6	399.3	410.4	419.6
62.5°	368.4	362.5	356.6	375.0	383.5
65°	333.7	326.5	323.2	338.3	352.7
67.5°	301.6	289.8	287.8	298.3	315.3
70°	264.9	250.4	249.8	257.7	278.0
72.5°	224.2	211.8	208.5	219.0	237.3
75°	185.5	171.8	167.8	177.7	194.7
77.5°	143.6	132.4	129.8	135.1	148.8
80°	101.0	94.4	91.8	93.8	103.6
82.5°	63.6	59.0	57.7	57.0	62.3
85°	32.1	28.8	28.8	26.9	28.2
87.5°	9.8	9.2	8.5	6.6	7.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)