

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: P485722

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-3STD-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: P485722
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-LD4-3STD-20-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

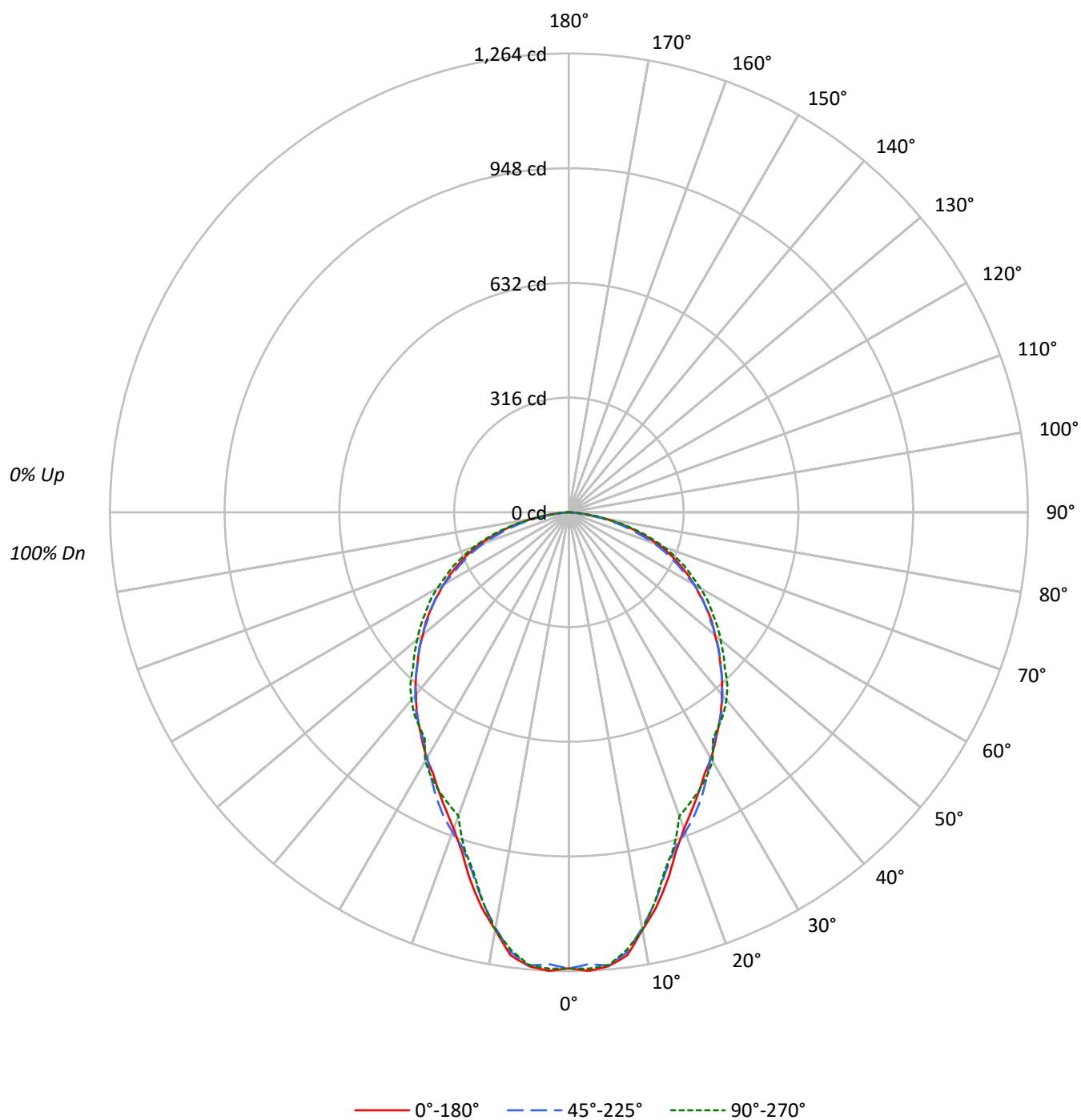
Lumens per Lamp: N/A
Luminaire Lumens: 2687.0 lumens
Efficiency: N/A
Efficacy: 53.7 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 50
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°	3381	3381	3381
5°	3390	3385	3381
10°	3190	3176	3189
15°	2923	2859	2843
20°	2655	2685	2548
25°	2518	2569	2514
30°	2432	2422	2458
35°	2361	2361	2361
40°	2302	2311	2369
45°	2245	2243	2312
50°	2197	2213	2281
55°	2173	2164	2262
60°	2145	2141	2251
65°	2118	2051	2238
70°	2077	1958	2179
75°	1922	1739	2017
80°	1559	1418	1599
85°	988	886	868



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.7	4.3
10°-20°	291.7	10.9
20°-30°	394.0	14.7
30°-40°	451.2	16.8
40°-50°	462.2	17.2
50°-60°	419.3	15.6
60°-70°	327.3	12.2
70°-80°	185.6	6.9
80°-90°	39.0	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°	802.4	29.9
0°-40°	1253.6	46.7
0°-60°	2135.1	79.5
0°-90°	2687.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2687.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1256	1256	1256	1256	1256	
5°	1255	1241	1253	1256	1252	117
15°	1049	1053	1026	1032	1021	293
25°	848	859	865	844	847	391
35°	719	720	719	719	719	450
45°	590	595	589	614	608	456
55°	463	463	461	478	482	414
65°	333	325	322	337	352	330
75°	185	171	167	177	194	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°	1256.4	1256.4	1256.4	1256.4	1256.4
2.5°	1264.3	1254.5	1246.0	1259.7	1258.4
5°	1255.1	1240.7	1253.2	1255.8	1251.8
7.5°	1230.9	1221.8	1222.4	1217.2	1216.6
10°	1167.6	1172.8	1162.3	1171.5	1166.9
12.5°	1113.3	1116.6	1098.3	1102.2	1097.0
15°	1049.3	1052.6	1026.4	1031.7	1020.6
17.5°	979.4	991.2	969.6	976.1	964.4
20°	927.1	936.9	937.6	927.1	889.9
22.5°	886.0	895.8	903.6	872.2	868.3
25°	848.1	859.2	865.1	844.1	846.8
27.5°	810.2	822.6	822.6	827.2	821.3
30°	782.7	788.0	779.5	796.5	791.2
32.5°	750.1	752.0	744.8	757.2	739.0
35°	718.7	720.0	718.7	719.4	718.7
37.5°	688.6	685.4	691.3	687.3	699.8
40°	655.3	655.3	657.9	664.5	674.3
42.5°	624.6	627.2	624.0	642.3	646.2
45°	590.0	594.6	589.3	613.5	607.6
47.5°	558.6	560.6	559.3	575.6	576.9
50°	524.7	527.3	528.6	542.9	544.9
52.5°	496.6	495.9	491.3	512.2	515.5
55°	463.2	462.6	461.3	477.6	482.2
57.5°	429.3	429.9	433.2	442.3	453.4
60°	398.6	395.3	397.9	409.0	418.2
62.5°	367.2	361.3	355.4	373.7	382.2
65°	332.6	325.4	322.1	337.1	351.5
67.5°	300.5	288.8	286.8	297.3	314.3
70°	264.0	249.6	248.9	256.8	277.0
72.5°	223.5	211.0	207.8	218.2	236.5
75°	184.9	171.2	167.3	177.1	194.0
77.5°	143.1	132.0	129.4	134.6	148.3
80°	100.6	94.1	91.5	93.4	103.2
82.5°	63.4	58.8	57.5	56.8	62.1
85°	32.0	28.7	28.7	26.8	28.1
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)