

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: P485747

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-4LO-20-120-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: P485747
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
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

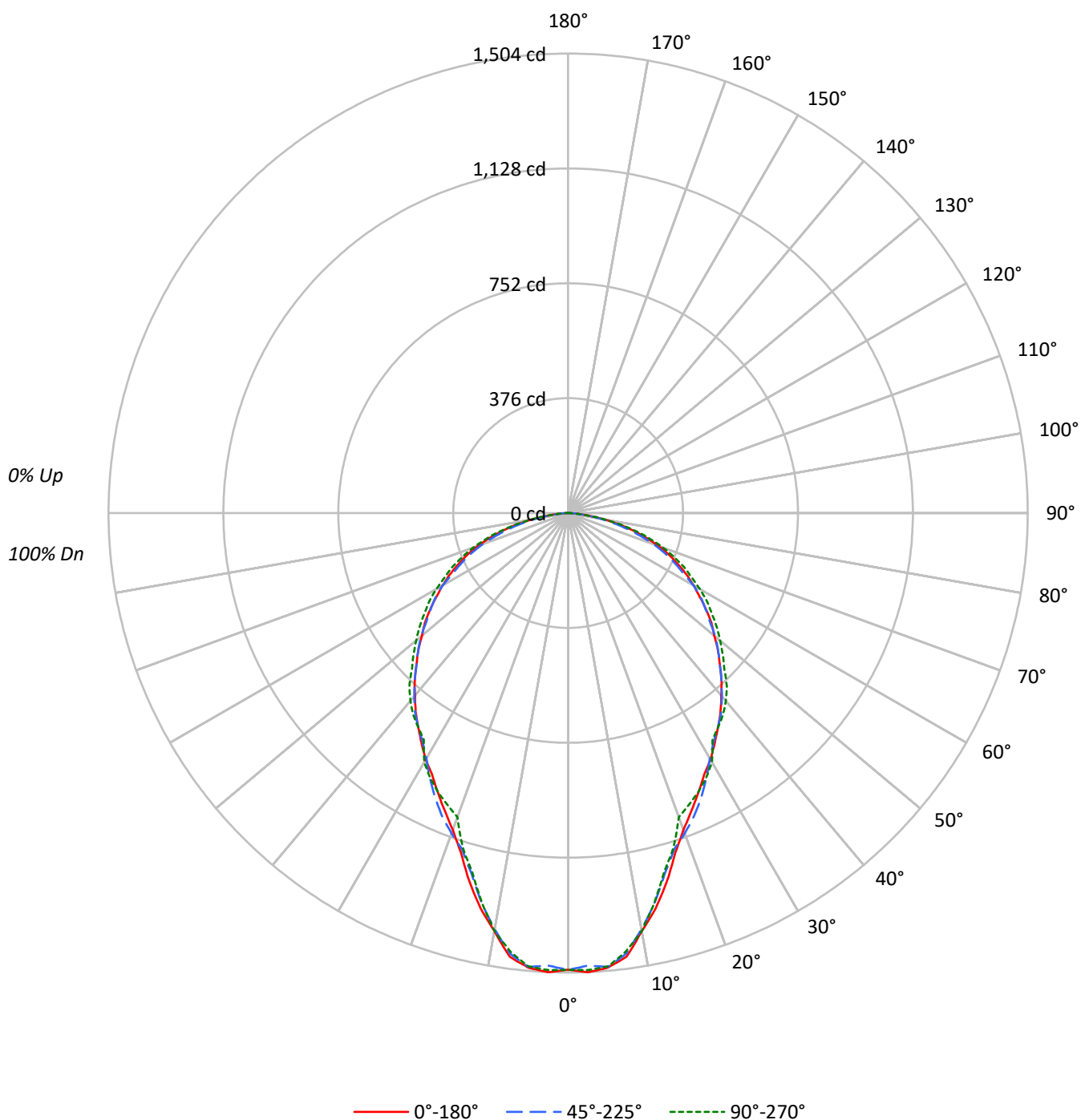
Lumens per Lamp: N/A
Luminaire Lumens: 3197.3 lumens
Efficiency: N/A
Efficacy: 68.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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					0
RW	70	50	30	10	70	50	30	10	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	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°	4023	4023	4023
5°	4034	4028	4024
10°	3796	3779	3794
15°	3478	3403	3383
20°	3159	3195	3032
25°	2996	3056	2992
30°	2894	2882	2925
35°	2809	2809	2809
40°	2739	2750	2818
45°	2672	2669	2751
50°	2614	2633	2714
55°	2586	2575	2692
60°	2552	2548	2678
65°	2520	2441	2663
70°	2471	2330	2593
75°	2287	2069	2401
80°	1855	1686	1903
85°	1176	1056	1031



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.9	4.3
10°-20°	347.2	10.9
20°-30°	468.8	14.7
30°-40°	536.9	16.8
40°-50°	549.9	17.2
50°-60°	499.0	15.6
60°-70°	389.4	12.2
70°-80°	220.9	6.9
80°-90°	46.4	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°	954.8	29.9
0°-40°	1491.7	46.7
0°-60°	2540.6	79.5
0°-90°	3197.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3197.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1495	1495	1495	1495	1495	
5°	1494	1476	1491	1494	1490	139
15°	1249	1252	1221	1228	1214	349
25°	1009	1022	1029	1004	1008	466
35°	855	857	855	856	855	536
45°	702	708	701	730	723	543
55°	551	550	549	568	574	493
65°	396	387	383	401	418	392
75°	220	204	199	211	231	230
85°	38	34	34	32	33	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1495.0	1495.0	1495.0	1495.0	1495.0
2.5°	1504.4	1492.7	1482.6	1498.9	1497.4
5°	1493.5	1476.4	1491.1	1494.3	1489.6
7.5°	1464.7	1453.8	1454.6	1448.4	1447.6
10°	1389.3	1395.5	1383.1	1394.0	1388.5
12.5°	1324.8	1328.7	1306.9	1311.6	1305.3
15°	1248.6	1252.5	1221.4	1227.6	1214.4
17.5°	1165.4	1179.4	1153.7	1161.5	1147.5
20°	1103.2	1114.9	1115.6	1103.2	1058.9
22.5°	1054.2	1065.9	1075.2	1037.9	1033.2
25°	1009.1	1022.3	1029.3	1004.5	1007.6
27.5°	964.0	978.8	978.8	984.2	977.3
30°	931.4	937.6	927.5	947.7	941.5
32.5°	892.5	894.8	886.3	901.1	879.3
35°	855.2	856.7	855.2	856.0	855.2
37.5°	819.4	815.5	822.5	817.9	832.6
40°	779.8	779.8	782.9	790.7	802.3
42.5°	743.2	746.3	742.5	764.2	768.9
45°	702.0	707.5	701.3	730.0	723.0
47.5°	664.7	667.0	665.5	684.9	686.5
50°	624.3	627.4	629.0	646.1	648.4
52.5°	590.9	590.1	584.6	609.5	613.4
55°	551.2	550.4	548.9	568.3	573.8
57.5°	510.8	511.6	515.4	526.3	539.5
60°	474.2	470.4	473.5	486.7	497.6
62.5°	436.9	429.9	422.9	444.7	454.8
65°	395.7	387.2	383.3	401.2	418.3
67.5°	357.6	343.6	341.3	353.7	374.0
70°	314.1	297.0	296.2	305.5	329.6
72.5°	265.9	251.1	247.2	259.7	281.4
75°	220.0	203.7	199.0	210.7	230.9
77.5°	170.3	157.0	153.9	160.2	176.5
80°	119.7	112.0	108.8	111.2	122.8
82.5°	75.4	70.0	68.4	67.6	73.9
85°	38.1	34.2	34.2	31.9	33.4
87.5°	11.7	10.9	10.1	7.8	8.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)