

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: P485713

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-3LO-27-120-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: P485713
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-LD4-3LO-27-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

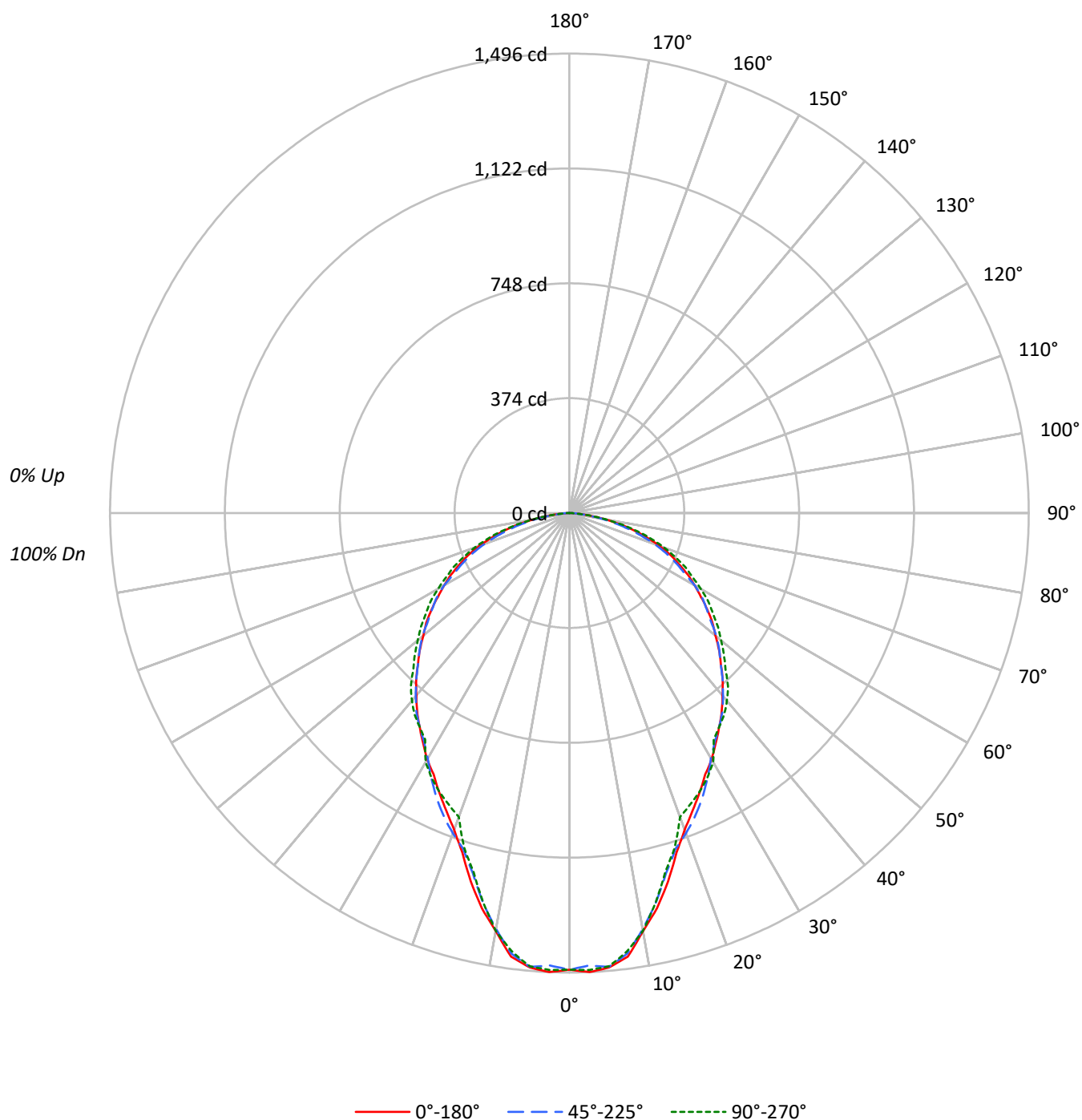
Lumens per Lamp: N/A
Luminaire Lumens: 3179.1 lumens
Efficiency: N/A
Efficacy: 90.6 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 35.1
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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CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-3LO-27-120-EDD

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°	4000	4000	4000
5°	4011	4005	4001
10°	3775	3758	3772
15°	3459	3383	3364
20°	3141	3177	3015
25°	2979	3039	2975
30°	2878	2866	2909
35°	2793	2793	2793
40°	2723	2734	2803
45°	2656	2654	2736
50°	2599	2618	2699
55°	2571	2561	2677
60°	2538	2534	2662
65°	2506	2427	2648
70°	2457	2317	2579
75°	2275	2058	2387
80°	1844	1677	1892
85°	1170	1050	1025



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.1	4.3
10°-20°	345.2	10.9
20°-30°	466.1	14.7
30°-40°	533.8	16.8
40°-50°	546.8	17.2
50°-60°	496.1	15.6
60°-70°	387.2	12.2
70°-80°	219.6	6.9
80°-90°	46.1	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°	949.4	29.9
0°-40°	1483.2	46.7
0°-60°	2526.1	79.5
0°-90°	3179.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3179.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1486	1486	1486	1486	1486	
5°	1485	1468	1483	1486	1481	139
15°	1242	1245	1214	1221	1208	347
25°	1003	1016	1024	999	1002	463
35°	850	852	850	851	850	533
45°	698	703	697	726	719	540
55°	548	547	546	565	570	490
65°	394	385	381	399	416	390
75°	219	202	198	210	230	229
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°	1486.5	1486.5	1486.5	1486.5	1486.5
2.5°	1495.8	1484.2	1474.2	1490.4	1488.8
5°	1485.0	1468.0	1482.7	1485.7	1481.1
7.5°	1456.4	1445.6	1446.3	1440.1	1439.4
10°	1381.4	1387.6	1375.2	1386.0	1380.6
12.5°	1317.2	1321.1	1299.4	1304.1	1297.9
15°	1241.5	1245.3	1214.4	1220.6	1207.5
17.5°	1158.8	1172.7	1147.2	1154.9	1141.0
20°	1096.9	1108.5	1109.3	1096.9	1052.9
22.5°	1048.2	1059.8	1069.1	1032.0	1027.3
25°	1003.4	1016.5	1023.5	998.7	1001.8
27.5°	958.5	973.2	973.2	978.6	971.7
30°	926.1	932.3	922.2	942.3	936.1
32.5°	887.4	889.7	881.2	895.9	874.3
35°	850.3	851.9	850.3	851.1	850.3
37.5°	814.8	810.9	817.9	813.2	827.9
40°	775.3	775.3	778.4	786.2	797.8
42.5°	739.0	742.1	738.2	759.9	764.5
45°	698.0	703.4	697.3	725.9	718.9
47.5°	660.9	663.3	661.7	681.0	682.6
50°	620.7	623.8	625.4	642.4	644.7
52.5°	587.5	586.7	581.3	606.0	609.9
55°	548.1	547.3	545.8	565.1	570.5
57.5°	507.9	508.6	512.5	523.3	536.5
60°	471.5	467.7	470.8	483.9	494.7
62.5°	434.4	427.5	420.5	442.2	452.2
65°	393.5	385.0	381.1	398.9	415.9
67.5°	355.6	341.7	339.4	351.7	371.8
70°	312.3	295.3	294.5	303.8	327.8
72.5°	264.4	249.7	245.8	258.2	279.8
75°	218.8	202.5	197.9	209.5	229.6
77.5°	169.3	156.2	153.1	159.2	175.5
80°	119.0	111.3	108.2	110.5	122.1
82.5°	75.0	69.6	68.0	67.3	73.4
85°	37.9	34.0	34.0	31.7	33.2
87.5°	11.6	10.8	10.0	7.7	8.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)