

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: P485783

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-5LO-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: P485783
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-LD4-5LO-20-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

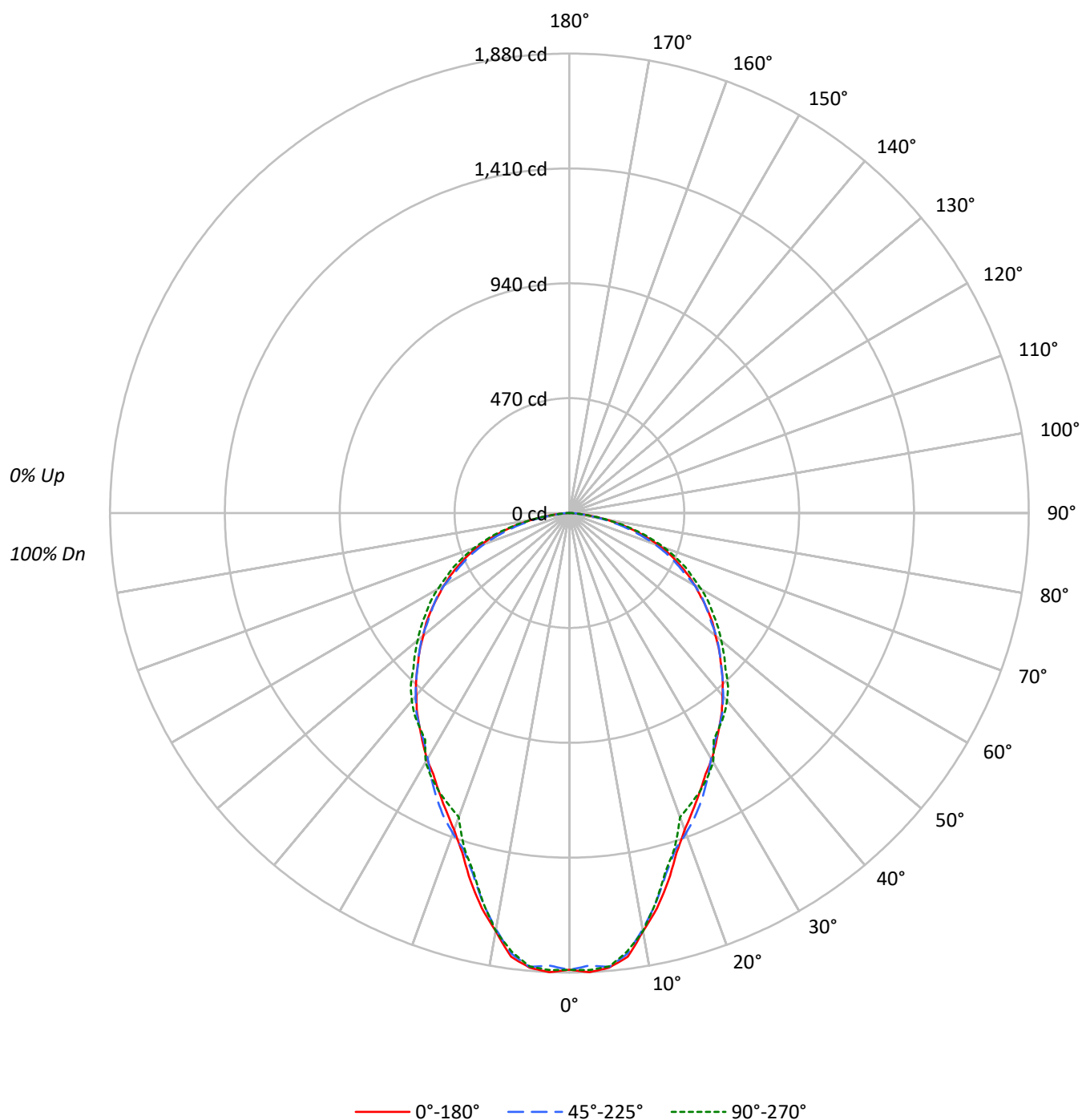
Lumens per Lamp: N/A
Luminaire Lumens: 3996.6 lumens
Efficiency: N/A
Efficacy: 68.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 58.5
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°	5029	5029	5029
5°	5043	5035	5030
10°	4745	4724	4743
15°	4348	4253	4229
20°	3949	3993	3790
25°	3745	3820	3740
30°	3617	3603	3657
35°	3512	3512	3512
40°	3424	3438	3523
45°	3339	3336	3440
50°	3267	3291	3393
55°	3232	3219	3365
60°	3190	3185	3348
65°	3149	3051	3329
70°	3089	2913	3242
75°	2859	2587	3001
80°	2320	2109	2379
85°	1470	1321	1291



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.6	4.3
10°-20°	433.9	10.9
20°-30°	586.0	14.7
30°-40°	671.1	16.8
40°-50°	687.4	17.2
50°-60°	623.7	15.6
60°-70°	486.8	12.2
70°-80°	276.1	6.9
80°-90°	58.0	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°	1193.5	29.9
0°-40°	1864.6	46.7
0°-60°	3175.7	79.5
0°-90°	3996.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3996.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1869	1869	1869	1869	1869	
5°	1867	1846	1864	1868	1862	174
15°	1561	1566	1527	1534	1518	436
25°	1261	1278	1287	1256	1260	582
35°	1069	1071	1069	1070	1069	670
45°	878	884	877	912	904	678
55°	689	688	686	710	717	616
65°	495	484	479	502	523	490
75°	275	255	249	263	289	288
85°	48	43	43	40	42	63
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1868.8	1868.8	1868.8	1868.8	1868.8
2.5°	1880.4	1865.9	1853.2	1873.6	1871.7
5°	1866.8	1845.5	1863.9	1867.8	1862.0
7.5°	1830.9	1817.3	1818.2	1810.5	1809.5
10°	1736.6	1744.4	1728.8	1742.4	1735.6
12.5°	1656.0	1660.8	1633.6	1639.4	1631.7
15°	1560.7	1565.6	1526.7	1534.5	1518.0
17.5°	1456.7	1474.2	1442.2	1451.9	1434.4
20°	1379.0	1393.6	1394.5	1379.0	1323.6
22.5°	1317.8	1332.3	1344.0	1297.4	1291.5
25°	1261.4	1277.9	1286.7	1255.6	1259.5
27.5°	1205.0	1223.5	1223.5	1230.3	1221.6
30°	1164.2	1172.0	1159.4	1184.6	1176.9
32.5°	1115.6	1118.5	1107.9	1126.3	1099.1
35°	1069.0	1070.9	1069.0	1070.0	1069.0
37.5°	1024.3	1019.4	1028.2	1022.3	1040.8
40°	974.7	974.7	978.6	988.3	1002.9
42.5°	929.0	932.9	928.1	955.3	961.1
45°	877.5	884.3	876.6	912.5	903.8
47.5°	830.9	833.8	831.9	856.2	858.1
50°	780.4	784.2	786.2	807.6	810.5
52.5°	738.6	737.6	730.8	761.9	766.8
55°	689.0	688.0	686.1	710.4	717.2
57.5°	638.5	639.4	644.3	657.9	674.4
60°	592.8	587.9	591.8	608.3	622.0
62.5°	546.2	537.4	528.7	555.9	568.5
65°	494.6	484.0	479.1	501.5	522.8
67.5°	447.0	429.5	426.6	442.2	467.4
70°	392.6	371.2	370.3	381.9	412.0
72.5°	332.4	313.9	309.0	324.6	351.8
75°	275.0	254.6	248.8	263.4	288.6
77.5°	212.8	196.3	192.4	200.2	220.6
80°	149.7	139.9	136.1	139.0	153.5
82.5°	94.3	87.5	85.5	84.5	92.3
85°	47.6	42.8	42.8	39.8	41.8
87.5°	14.6	13.6	12.6	9.7	10.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)