

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: P485730

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-3STD-40-120-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: P485730
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-40-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

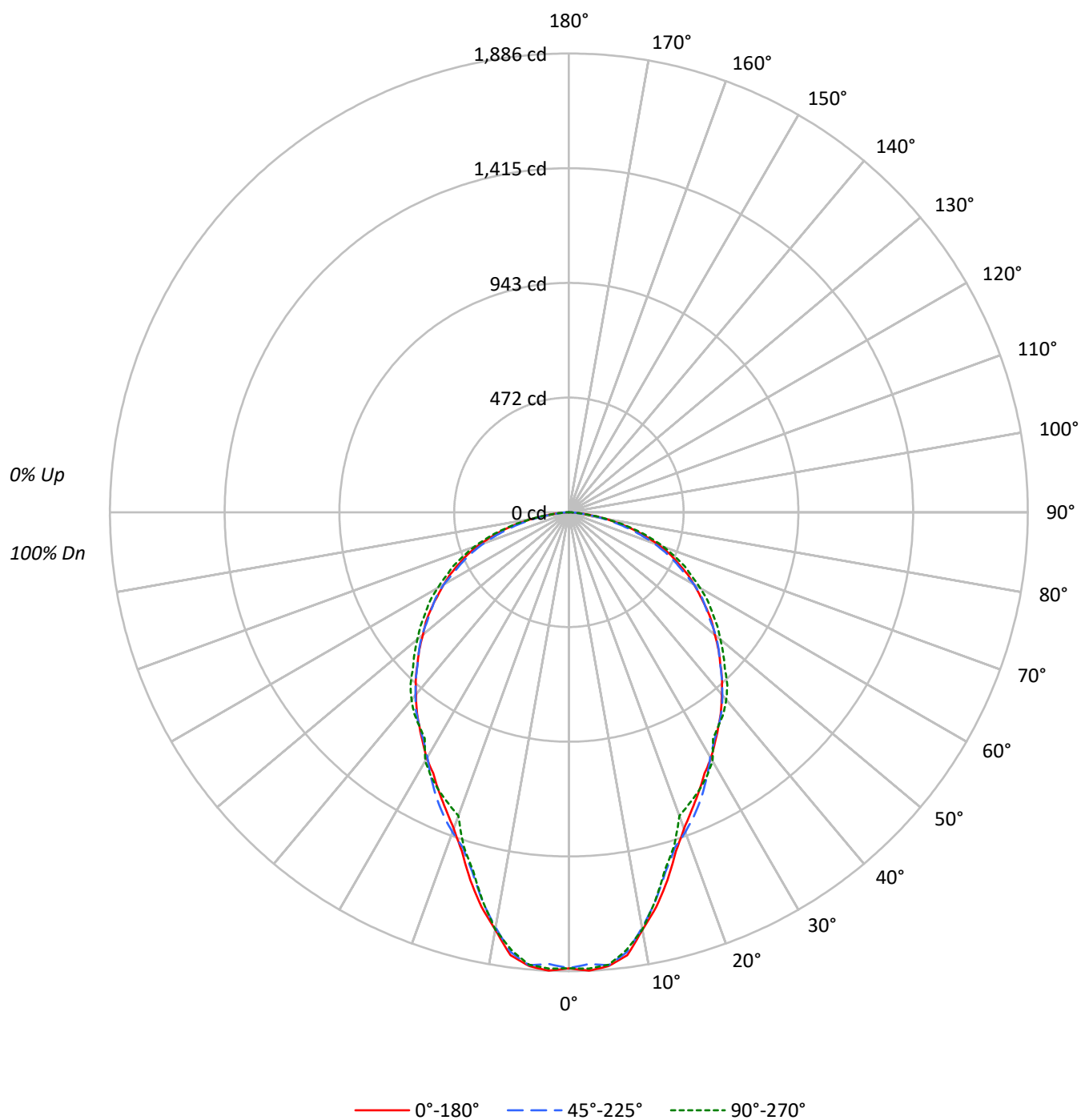
Lumens per Lamp: N/A
Luminaire Lumens: 4007.6 lumens
Efficiency: N/A
Efficacy: 80.2 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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				0
RW	70	50	30	10	70	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		100
1	109	104	100	96	106	102	98	95	98	95	92		94	91	89		84
2	99	91	84	79	97	89	83	78	86	81	76		82	78	74		70
3	91	80	72	66	88	79	71	65	76	69	64		73	67	63		60
4	83	71	63	56	81	70	62	56	67	60	55		65	59	54		51
5	77	64	55	48	75	63	54	48	61	53	48		59	52	47		45
6	71	58	49	43	69	57	48	42	55	48	42		53	47	42		39
7	66	53	44	38	64	52	44	38	50	43	37		49	42	37		35
8	61	48	40	34	60	47	39	34	46	39	34		45	38	33		31
9	58	44	36	31	56	44	36	31	43	35	30		41	35	30		28
10	54	41	33	28	53	40	33	28	40	33	28		39	32	28		26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5043	5043	5043
5°	5057	5049	5044
10°	4758	4737	4756
15°	4360	4265	4240
20°	3960	4005	3801
25°	3756	3831	3750
30°	3627	3613	3667
35°	3521	3521	3521
40°	3433	3447	3533
45°	3349	3345	3449
50°	3276	3301	3402
55°	3241	3228	3374
60°	3199	3194	3357
65°	3158	3059	3338
70°	3098	2921	3251
75°	2868	2594	3009
80°	2326	2114	2386
85°	1473	1325	1294



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	174.0	4.3
10°-20°	435.1	10.9
20°-30°	587.6	14.7
30°-40°	672.9	16.8
40°-50°	689.3	17.2
50°-60°	625.4	15.6
60°-70°	488.2	12.2
70°-80°	276.9	6.9
80°-90°	58.1	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°	1196.8	29.9
0°-40°	1869.7	46.7
0°-60°	3184.5	79.5
0°-90°	4007.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4007.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1874	1874	1874	1874	1874	
5°	1872	1850	1869	1873	1867	175
15°	1565	1570	1531	1539	1522	437
25°	1265	1281	1290	1259	1263	584
35°	1072	1074	1072	1073	1072	671
45°	880	887	879	915	906	680
55°	691	690	688	712	719	617
65°	496	485	480	503	524	492
75°	276	255	250	264	289	289
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°	1873.9	1873.9	1873.9	1873.9	1873.9
2.5°	1885.6	1871.0	1858.3	1878.8	1876.8
5°	1872.0	1850.5	1869.0	1872.9	1867.1
7.5°	1835.9	1822.3	1823.2	1815.5	1814.5
10°	1741.4	1749.2	1733.6	1747.2	1740.4
12.5°	1660.5	1665.4	1638.1	1643.9	1636.1
15°	1565.0	1569.9	1530.9	1538.7	1522.1
17.5°	1460.7	1478.3	1446.1	1455.9	1438.3
20°	1382.8	1397.4	1398.4	1382.8	1327.2
22.5°	1321.4	1336.0	1347.7	1300.9	1295.1
25°	1264.9	1281.4	1290.2	1259.0	1262.9
27.5°	1208.4	1226.9	1226.9	1233.7	1224.9
30°	1167.4	1175.2	1162.6	1187.9	1180.1
32.5°	1118.7	1121.6	1110.9	1129.4	1102.1
35°	1071.9	1073.9	1071.9	1072.9	1071.9
37.5°	1027.1	1022.2	1031.0	1025.2	1043.7
40°	977.4	977.4	981.3	991.0	1005.7
42.5°	931.6	935.5	930.6	957.9	963.8
45°	880.0	886.8	879.0	915.0	906.3
47.5°	833.2	836.1	834.2	858.5	860.5
50°	782.5	786.4	788.4	809.8	812.7
52.5°	740.6	739.6	732.8	764.0	768.9
55°	690.9	689.9	688.0	712.3	719.2
57.5°	640.2	641.2	646.1	659.7	676.3
60°	594.4	589.6	593.5	610.0	623.7
62.5°	547.7	538.9	530.1	557.4	570.1
65°	496.0	485.3	480.4	502.8	524.3
67.5°	448.3	430.7	427.8	443.4	468.7
70°	393.7	372.3	371.3	383.0	413.2
72.5°	333.3	314.8	309.9	325.5	352.8
75°	275.8	255.3	249.5	264.1	289.4
77.5°	213.4	196.8	192.9	200.7	221.2
80°	150.1	140.3	136.4	139.4	154.0
82.5°	94.5	87.7	85.8	84.8	92.6
85°	47.7	42.9	42.9	40.0	41.9
87.5°	14.6	13.6	12.7	9.7	10.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)