

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: P485731

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-3STD-40-120-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: P485731
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
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

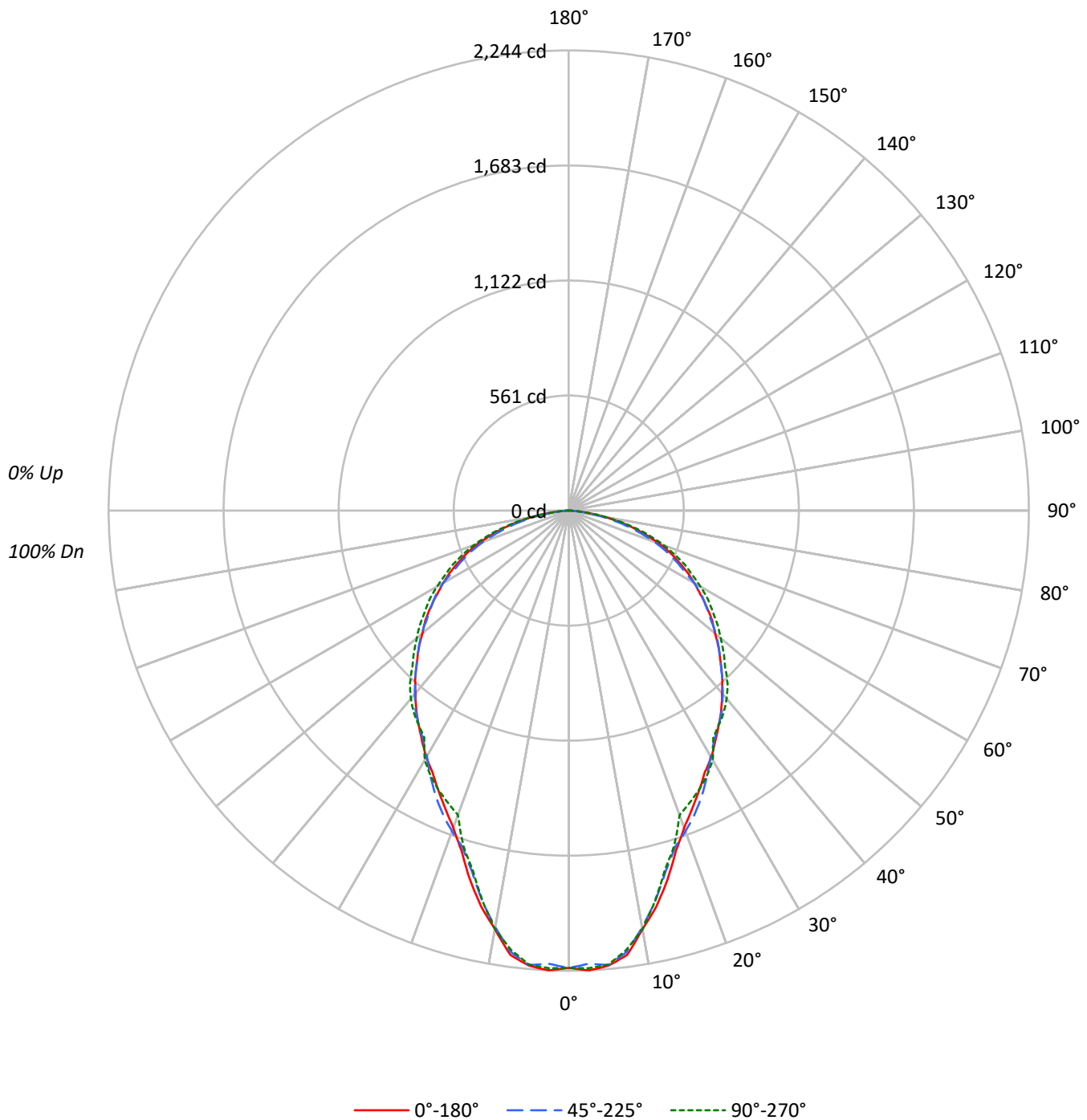
Lumens per Lamp: N/A
Luminaire Lumens: 4769.6 lumens
Efficiency: N/A
Efficacy: 95.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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		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°	6001	6001	6001
5°	6018	6009	6002
10°	5663	5638	5660
15°	5189	5076	5047
20°	4713	4766	4523
25°	4470	4559	4463
30°	4317	4299	4364
35°	4191	4191	4191
40°	4086	4103	4204
45°	3986	3981	4105
50°	3899	3928	4049
55°	3858	3841	4016
60°	3808	3801	3994
65°	3759	3641	3973
70°	3686	3477	3869
75°	3412	3087	3581
80°	2768	2517	2839
85°	1754	1575	1541



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	207.1	4.3
10°-20°	517.9	10.9
20°-30°	699.4	14.7
30°-40°	800.9	16.8
40°-50°	820.4	17.2
50°-60°	744.4	15.6
60°-70°	581.0	12.2
70°-80°	329.5	6.9
80°-90°	69.2	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°	1424.4	29.9
0°-40°	2225.3	46.7
0°-60°	3790.0	79.5
0°-90°	4769.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4769.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2230	2230	2230	2230	2230	
5°	2228	2202	2224	2229	2222	208
15°	1863	1868	1822	1831	1812	521
25°	1505	1525	1536	1498	1503	695
35°	1276	1278	1276	1277	1276	799
45°	1047	1055	1046	1089	1079	810
55°	822	821	819	848	856	735
65°	590	578	572	598	624	585
75°	328	304	297	314	344	343
85°	57	51	51	48	50	75
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2230.2	2230.2	2230.2	2230.2	2230.2
2.5°	2244.1	2226.7	2211.7	2236.0	2233.7
5°	2227.9	2202.4	2224.4	2229.1	2222.1
7.5°	2185.0	2168.8	2169.9	2160.6	2159.5
10°	2072.5	2081.8	2063.2	2079.5	2071.3
12.5°	1976.2	1982.0	1949.6	1956.5	1947.2
15°	1862.6	1868.4	1822.0	1831.3	1811.6
17.5°	1738.5	1759.4	1721.1	1732.7	1711.8
20°	1645.7	1663.1	1664.3	1645.7	1579.6
22.5°	1572.6	1590.0	1604.0	1548.3	1541.3
25°	1505.4	1525.1	1535.5	1498.4	1503.1
27.5°	1438.1	1460.1	1460.1	1468.3	1457.8
30°	1389.4	1398.7	1383.6	1413.8	1404.5
32.5°	1331.4	1334.9	1322.1	1344.2	1311.7
35°	1275.7	1278.1	1275.7	1276.9	1275.7
37.5°	1222.4	1216.6	1227.0	1220.1	1242.1
40°	1163.2	1163.2	1167.9	1179.5	1196.9
42.5°	1108.7	1113.4	1107.6	1140.0	1147.0
45°	1047.3	1055.4	1046.1	1089.0	1078.6
47.5°	991.6	995.1	992.8	1021.8	1024.1
50°	931.3	935.9	938.2	963.8	967.2
52.5°	881.4	880.3	872.1	909.3	915.1
55°	822.3	821.1	818.8	847.8	855.9
57.5°	762.0	763.1	768.9	785.2	804.9
60°	707.5	701.7	706.3	726.0	742.2
62.5°	651.8	641.3	630.9	663.4	678.5
65°	590.3	577.6	571.8	598.4	624.0
67.5°	533.5	512.6	509.1	527.7	557.8
70°	468.5	443.0	441.9	455.8	491.7
72.5°	396.6	374.6	368.8	387.4	419.8
75°	328.2	303.9	296.9	314.3	344.4
77.5°	254.0	234.3	229.6	238.9	263.3
80°	178.6	167.0	162.4	165.8	183.2
82.5°	112.5	104.4	102.1	100.9	110.2
85°	56.8	51.0	51.0	47.6	49.9
87.5°	17.4	16.2	15.1	11.6	12.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)