

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: P485704

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-3HI-35-120-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: P485704
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-LD4-3HI-35-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

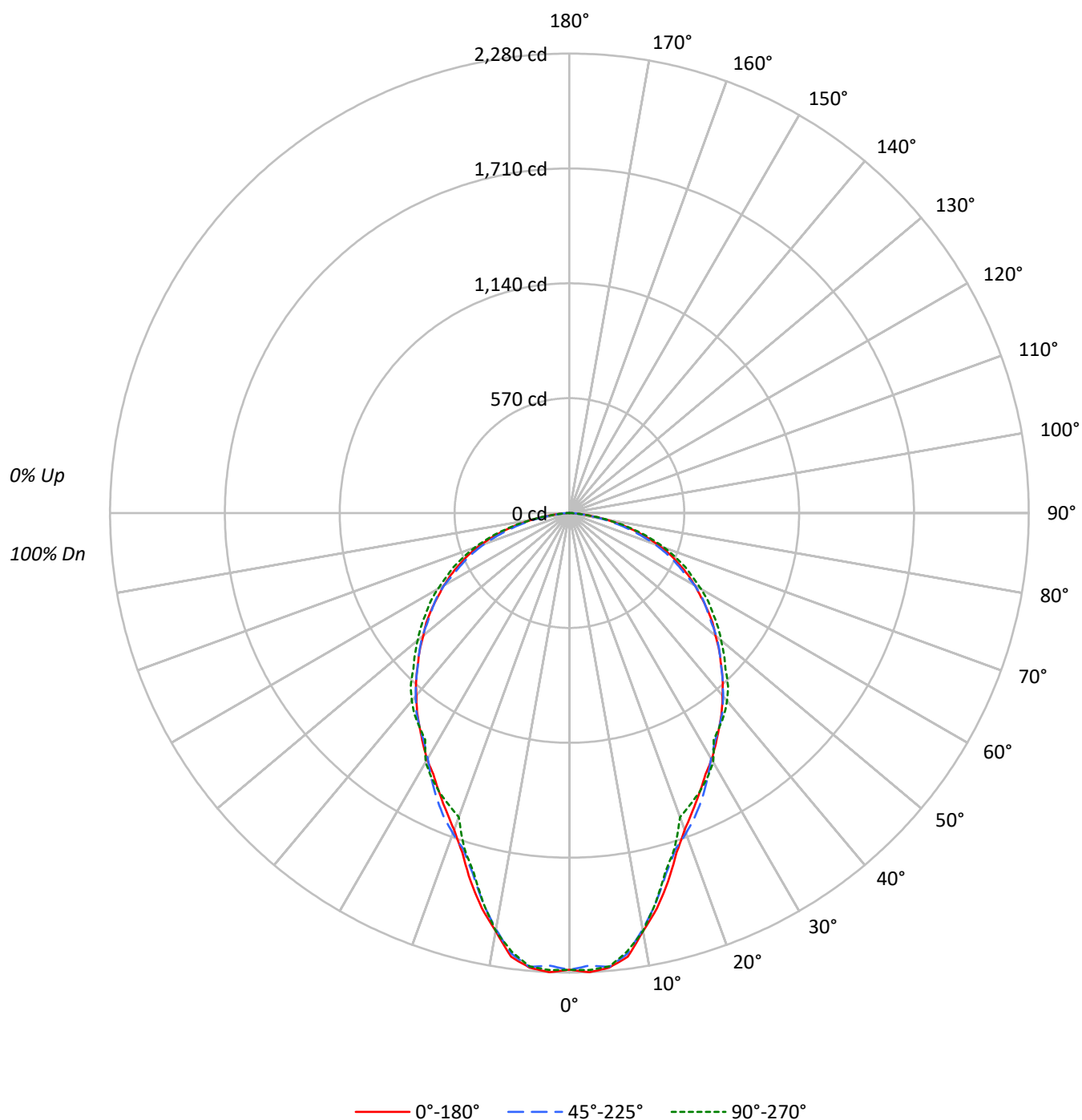
Lumens per Lamp: N/A
Luminaire Lumens: 4846.8 lumens
Efficiency: N/A
Efficacy: 73.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 66
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°	6099	6099	6099
5°	6116	6106	6100
10°	5755	5729	5752
15°	5273	5158	5129
20°	4789	4843	4597
25°	4542	4633	4535
30°	4387	4369	4435
35°	4259	4259	4259
40°	4153	4169	4272
45°	4050	4045	4171
50°	3962	3991	4115
55°	3920	3903	4081
60°	3869	3863	4060
65°	3820	3699	4038
70°	3746	3533	3932
75°	3467	3137	3639
80°	2813	2557	2885
85°	1782	1602	1565



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	210.5	4.3
10°-20°	526.2	10.9
20°-30°	710.7	14.7
30°-40°	813.8	16.8
40°-50°	833.6	17.2
50°-60°	756.4	15.6
60°-70°	590.4	12.2
70°-80°	334.8	6.9
80°-90°	70.3	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°	1447.4	29.9
0°-40°	2261.3	46.7
0°-60°	3851.3	79.5
0°-90°	4846.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4846.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2266	2266	2266	2266	2266	
5°	2264	2238	2260	2265	2258	211
15°	1893	1899	1852	1861	1841	529
25°	1530	1550	1560	1523	1527	706
35°	1296	1299	1296	1298	1296	812
45°	1064	1072	1063	1107	1096	823
55°	836	834	832	862	870	747
65°	600	587	581	608	634	594
75°	334	309	302	319	350	349
85°	58	52	52	48	51	76
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2266.3	2266.3	2266.3	2266.3	2266.3
2.5°	2280.5	2262.8	2247.5	2272.2	2269.9
5°	2264.0	2238.0	2260.4	2265.1	2258.1
7.5°	2220.4	2203.9	2205.0	2195.6	2194.4
10°	2106.0	2115.5	2096.6	2113.1	2104.9
12.5°	2008.2	2014.1	1981.1	1988.2	1978.8
15°	1892.7	1898.6	1851.5	1860.9	1840.9
17.5°	1766.6	1787.8	1748.9	1760.7	1739.5
20°	1672.3	1690.0	1691.2	1672.3	1605.2
22.5°	1598.1	1615.8	1629.9	1573.3	1566.3
25°	1529.7	1549.8	1560.4	1522.7	1527.4
27.5°	1461.4	1483.8	1483.8	1492.0	1481.4
30°	1411.9	1421.3	1406.0	1436.6	1427.2
32.5°	1353.0	1356.5	1343.5	1365.9	1332.9
35°	1296.4	1298.7	1296.4	1297.6	1296.4
37.5°	1242.2	1236.3	1246.9	1239.8	1262.2
40°	1182.1	1182.1	1186.8	1198.6	1216.2
42.5°	1126.7	1131.4	1125.5	1158.5	1165.6
45°	1064.2	1072.5	1063.0	1106.6	1096.0
47.5°	1007.6	1011.2	1008.8	1038.3	1040.6
50°	946.4	951.1	953.4	979.4	982.9
52.5°	895.7	894.5	886.3	924.0	929.9
55°	835.6	834.4	832.0	861.5	869.8
57.5°	774.3	775.5	781.4	797.9	817.9
60°	718.9	713.0	717.7	737.8	754.3
62.5°	662.3	651.7	641.1	674.1	689.4
65°	599.9	586.9	581.0	608.1	634.1
67.5°	542.1	520.9	517.4	536.2	566.9
70°	476.1	450.2	449.0	463.2	499.7
72.5°	403.1	380.7	374.8	393.6	426.6
75°	333.5	308.8	301.7	319.4	350.0
77.5°	258.1	238.1	233.4	242.8	267.5
80°	181.5	169.7	165.0	168.5	186.2
82.5°	114.3	106.1	103.7	102.5	112.0
85°	57.7	51.9	51.9	48.3	50.7
87.5°	17.7	16.5	15.3	11.8	13.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)