

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: P485786

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-5LO-30-120-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: P485786
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-30-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

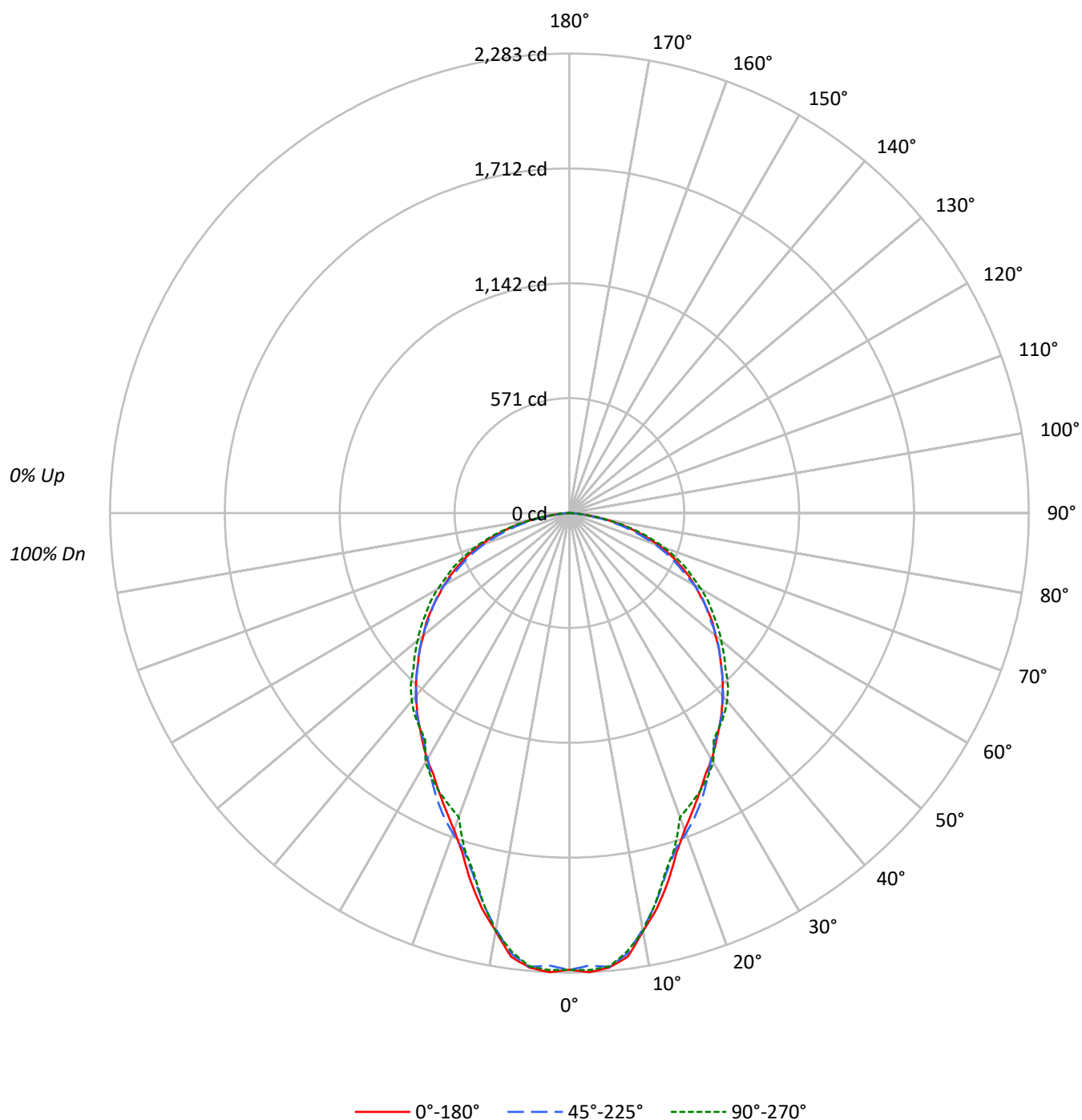
Lumens per Lamp: N/A
Luminaire Lumens: 4853.0 lumens
Efficiency: N/A
Efficacy: 83.0 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	6106	6106	6106
5°	6123	6114	6108
10°	5762	5736	5759
15°	5280	5165	5135
20°	4795	4849	4603
25°	4548	4639	4541
30°	4393	4374	4440
35°	4264	4264	4264
40°	4158	4174	4278
45°	4055	4051	4176
50°	3967	3997	4120
55°	3925	3909	4086
60°	3874	3867	4064
65°	3824	3705	4043
70°	3751	3537	3936
75°	3473	3141	3644
80°	2816	2560	2889
85°	1785	1602	1565



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	210.8	4.3
10°-20°	526.9	10.9
20°-30°	711.6	14.7
30°-40°	814.9	16.8
40°-50°	834.7	17.2
50°-60°	757.4	15.6
60°-70°	591.1	12.2
70°-80°	335.3	6.9
80°-90°	70.4	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°	1449.3	29.9
0°-40°	2264.2	46.7
0°-60°	3856.2	79.5
0°-90°	4853.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4853.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2269	2269	2269	2269	2269	
5°	2267	2241	2263	2268	2261	212
15°	1895	1901	1854	1863	1843	530
25°	1532	1552	1562	1525	1529	707
35°	1298	1300	1298	1299	1298	813
45°	1066	1074	1064	1108	1097	824
55°	837	836	833	863	871	748
65°	601	588	582	609	635	595
75°	334	309	302	320	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°	2269.2	2269.2	2269.2	2269.2	2269.2
2.5°	2283.4	2265.7	2250.3	2275.1	2272.8
5°	2266.9	2240.9	2263.3	2268.0	2261.0
7.5°	2223.2	2206.7	2207.9	2198.4	2197.2
10°	2108.7	2118.2	2099.3	2115.8	2107.6
12.5°	2010.8	2016.7	1983.7	1990.7	1981.3
15°	1895.1	1901.0	1853.8	1863.3	1843.2
17.5°	1768.9	1790.1	1751.2	1763.0	1741.7
20°	1674.5	1692.2	1693.4	1674.5	1607.2
22.5°	1600.1	1617.8	1632.0	1575.4	1568.3
25°	1531.7	1551.8	1562.4	1524.6	1529.3
27.5°	1463.3	1485.7	1485.7	1493.9	1483.3
30°	1413.7	1423.1	1407.8	1438.5	1429.0
32.5°	1354.7	1358.2	1345.2	1367.7	1334.6
35°	1298.0	1300.4	1298.0	1299.2	1298.0
37.5°	1243.8	1237.9	1248.5	1241.4	1263.8
40°	1183.6	1183.6	1188.3	1200.1	1217.8
42.5°	1128.1	1132.8	1126.9	1160.0	1167.1
45°	1065.6	1073.8	1064.4	1108.1	1097.4
47.5°	1008.9	1012.5	1010.1	1039.6	1042.0
50°	947.6	952.3	954.7	980.6	984.2
52.5°	896.8	895.7	887.4	925.2	931.1
55°	836.7	835.5	833.1	862.6	870.9
57.5°	775.3	776.5	782.4	798.9	818.9
60°	719.8	713.9	718.6	738.7	755.2
62.5°	663.2	652.6	641.9	675.0	690.3
65°	600.6	587.7	581.8	608.9	634.9
67.5°	542.8	521.6	518.0	536.9	567.6
70°	476.7	450.8	449.6	463.8	500.3
72.5°	403.6	381.2	375.3	394.1	427.2
75°	334.0	309.2	302.1	319.8	350.5
77.5°	258.4	238.4	233.6	243.1	267.9
80°	181.7	169.9	165.2	168.7	186.4
82.5°	114.5	106.2	103.8	102.7	112.1
85°	57.8	51.9	51.9	48.4	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)