

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: P485647

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-1LO-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: P485647
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-LD4-1LO-40-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

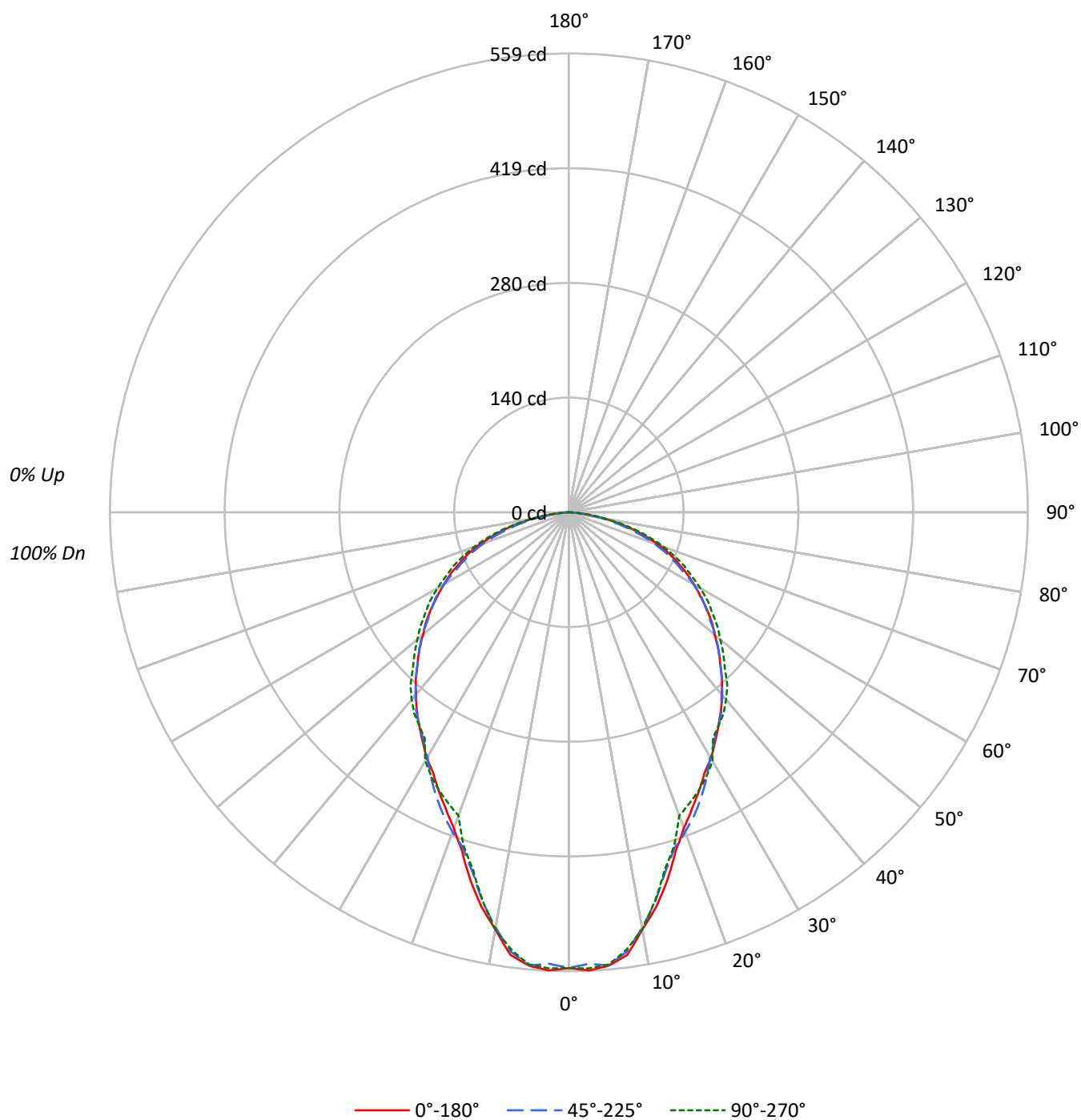
Lumens per Lamp: N/A
Luminaire Lumens: 1187.2 lumens
Efficiency: N/A
Efficacy: 101.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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				10			
RW	70	50	30	10	70	50	30	10	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	102	102	102	100		
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84		
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	70		
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60		
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51		
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45		
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39		
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35		
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31		
9	58	44	36	31	56	44	36	31	43	35	30	41	35	30	40	35	30	28		
10	54	41	33	28	53	40	33	28	40	33	28	39	32	28	38	32	28	26		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1494	1494	1494
5°	1498	1496	1494
10°	1410	1403	1409
15°	1292	1263	1256
20°	1173	1186	1126
25°	1113	1135	1111
30°	1074	1070	1086
35°	1043	1043	1043
40°	1017	1021	1046
45°	992	991	1022
50°	970	978	1008
55°	960	956	999
60°	948	946	995
65°	935	906	989
70°	917	865	963
75°	849	768	891
80°	690	626	707
85°	435	392	383



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.6	4.3
10°-20°	128.9	10.9
20°-30°	174.1	14.7
30°-40°	199.3	16.8
40°-50°	204.2	17.2
50°-60°	185.3	15.6
60°-70°	144.6	12.2
70°-80°	82.0	6.9
80°-90°	17.2	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°	354.5	29.9
0°-40°	553.9	46.7
0°-60°	943.4	79.5
0°-90°	1187.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1187.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	555	555	555	555	555	
5°	554	548	554	555	553	52
15°	464	465	454	456	451	130
25°	375	380	382	373	374	173
35°	318	318	318	318	318	199
45°	261	263	260	271	268	202
55°	205	204	204	211	213	183
65°	147	144	142	149	155	146
75°	82	76	74	78	86	85
85°	14	13	13	12	12	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	555.1	555.1	555.1	555.1	555.1
2.5°	558.6	554.3	550.5	556.6	556.0
5°	554.5	548.2	553.7	554.8	553.1
7.5°	543.9	539.8	540.1	537.8	537.5
10°	515.9	518.2	513.6	517.6	515.6
12.5°	491.9	493.3	485.3	487.0	484.7
15°	463.6	465.1	453.5	455.8	450.9
17.5°	432.7	437.9	428.4	431.3	426.1
20°	409.6	414.0	414.3	409.6	393.2
22.5°	391.4	395.8	399.2	385.4	383.7
25°	374.7	379.6	382.2	373.0	374.1
27.5°	358.0	363.4	363.4	365.5	362.9
30°	345.8	348.1	344.4	351.9	349.6
32.5°	331.4	332.3	329.1	334.6	326.5
35°	317.5	318.1	317.5	317.8	317.5
37.5°	304.3	302.8	305.4	303.7	309.2
40°	289.5	289.5	290.7	293.6	297.9
42.5°	276.0	277.1	275.7	283.8	285.5
45°	260.7	262.7	260.4	271.1	268.5
47.5°	246.8	247.7	247.1	254.3	254.9
50°	231.8	233.0	233.5	239.9	240.8
52.5°	219.4	219.1	217.1	226.3	227.8
55°	204.7	204.4	203.8	211.0	213.0
57.5°	189.7	189.9	191.4	195.4	200.3
60°	176.1	174.6	175.8	180.7	184.8
62.5°	162.2	159.6	157.0	165.1	168.9
65°	146.9	143.8	142.3	149.0	155.3
67.5°	132.8	127.6	126.7	131.3	138.9
70°	116.6	110.3	110.0	113.4	122.4
72.5°	98.7	93.2	91.8	96.4	104.5
75°	81.7	75.6	73.9	78.2	85.7
77.5°	63.2	58.3	57.2	59.5	65.5
80°	44.5	41.6	40.4	41.3	45.6
82.5°	28.0	26.0	25.4	25.1	27.4
85°	14.1	12.7	12.7	11.8	12.4
87.5°	4.3	4.0	3.8	2.9	3.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)