

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: FAIL-SAFE

Report Number: P559960

Luminaire Tested: FSR-12-2-LD4-1LO-50-UNV-82-88-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559960
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)
Test Lab: INNOVATION CENTER
Issue Date: 7/20/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-12-2-LD4-1LO-50-UNV-82-88-EDD-90
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 799.0 lumens
Efficiency: N/A
Efficacy: 68.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

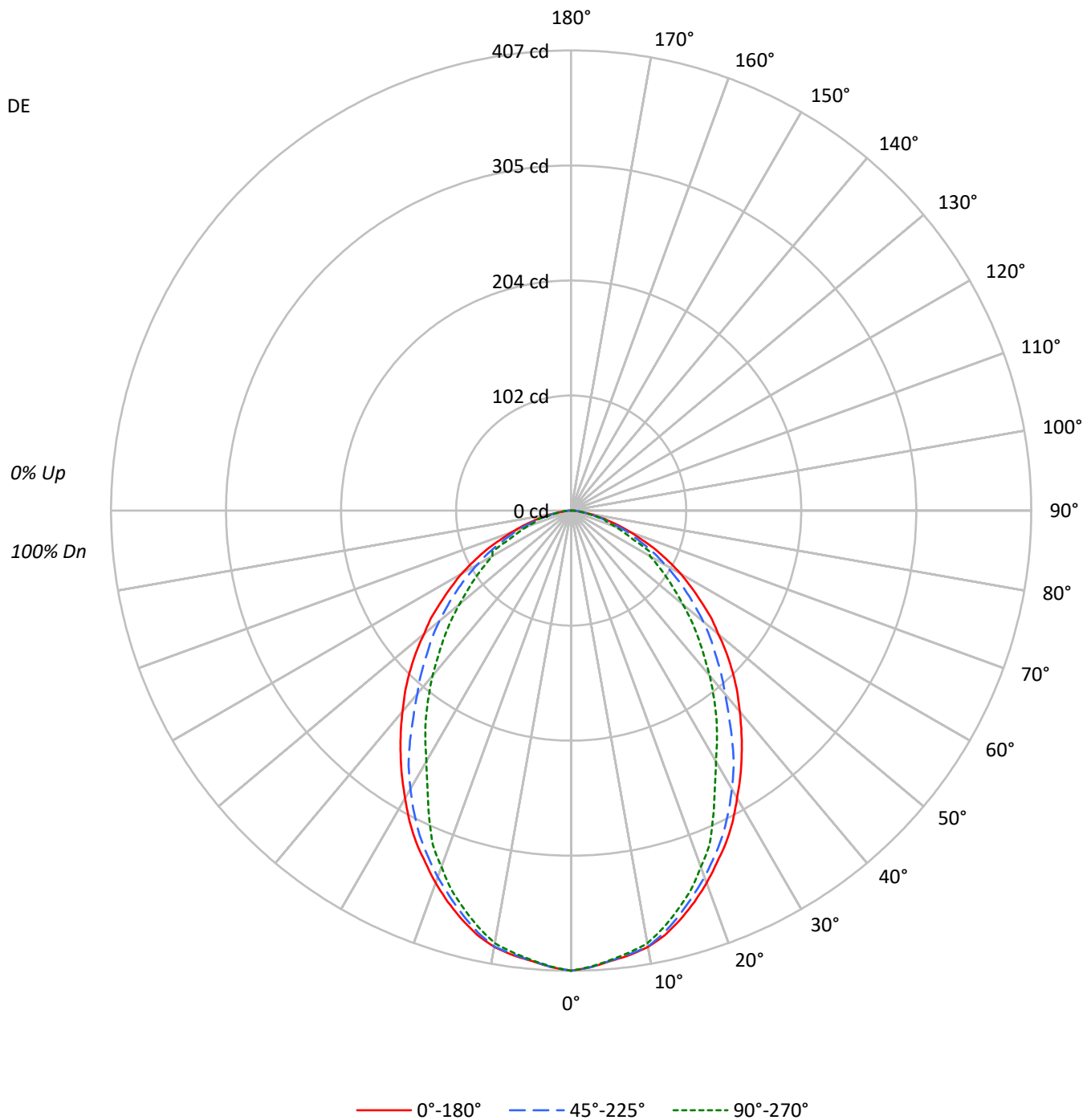
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	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	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87																												
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75																												
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65																												
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56																												
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50																												
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44																												
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40																												
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36																												
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33																												
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2190	2190	2190
5°	2160	2158	2156
10°	2142	2140	2124
15°	2084	2063	2034
20°	2007	1975	1922
25°	1925	1883	1766
30°	1825	1766	1591
35°	1728	1632	1472
40°	1630	1487	1339
45°	1537	1375	1210
50°	1423	1276	1079
55°	1316	1157	966
60°	1206	1033	866
65°	1061	904	767
70°	873	792	651
75°	695	607	636
80°	468	437	409
85°	290	346	408

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1537 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.9	4.7
10°-20°	104.0	13.0
20°-30°	143.9	18.0
30°-40°	153.5	19.2
40°-50°	140.0	17.5
50°-60°	109.7	13.7
60°-70°	71.5	8.9
70°-80°	31.7	4.0
80°-90°	6.8	0.8
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°	285.8	35.8
0°-40°	439.3	55.0
0°-60°	689.0	86.2
0°-90°	799.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	799.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	407	407	407	407	407	
5°	400	400	400	399	399	38
15°	374	374	370	366	365	105
25°	324	322	317	306	297	149
35°	263	261	248	230	224	164
45°	202	198	181	166	159	156
55°	140	136	123	109	103	126
65°	83	79	71	72	60	82
75°	33	31	29	28	31	36
85°	5	5	6	6	7	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	407.0	407.0	407.0	407.0	407.0
2.5°	404.2	404.2	404.2	403.7	403.7
5°	399.9	399.5	399.5	399.0	399.0
7.5°	396.6	396.2	395.7	395.2	394.3
10°	391.9	391.9	391.5	389.1	388.6
12.5°	384.4	383.9	382.1	378.8	377.8
15°	374.1	374.1	370.3	366.5	365.1
17.5°	362.8	362.3	357.6	353.8	351.9
20°	350.5	349.6	344.9	338.8	335.5
22.5°	336.9	336.9	331.2	323.2	320.0
25°	324.2	322.3	317.1	305.8	297.4
27.5°	309.6	306.8	301.1	285.1	275.3
30°	293.6	292.2	284.2	263.5	256.0
32.5°	278.5	276.2	267.7	246.1	240.0
35°	263.0	261.1	248.4	229.6	224.0
37.5°	247.5	245.1	229.1	214.1	207.0
40°	232.0	229.1	211.7	198.1	190.6
42.5°	217.4	213.6	196.7	182.1	173.6
45°	201.9	197.6	180.7	165.6	159.0
47.5°	186.3	182.6	167.0	151.5	144.0
50°	169.9	166.6	152.4	136.9	128.9
52.5°	156.2	151.0	137.4	121.9	115.3
55°	140.2	136.0	123.3	108.7	103.0
57.5°	125.6	121.4	109.6	96.0	91.3
60°	112.0	105.9	96.0	84.2	80.5
62.5°	96.9	92.2	83.8	73.9	78.6
65°	83.3	78.6	71.0	72.5	60.2
67.5°	68.2	65.9	59.3	52.7	50.8
70°	55.5	52.7	50.3	43.3	41.4
72.5°	44.2	41.4	38.1	34.3	32.9
75°	33.4	31.1	29.2	27.8	30.6
77.5°	23.1	22.1	20.7	19.3	18.8
80°	15.1	14.6	14.1	13.6	13.2
82.5°	8.9	8.9	8.9	8.9	8.9
85°	4.7	5.2	5.6	6.1	6.6
87.5°	2.8	2.8	3.3	3.8	4.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)