

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: P559828

Luminaire Tested: FSR-12-2-LD4-1LO-35-UNV-82-86-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559828
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-35-UNV-82-86-EDD-90
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 859.0 lumens
Efficiency: N/A
Efficacy: 73.4 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

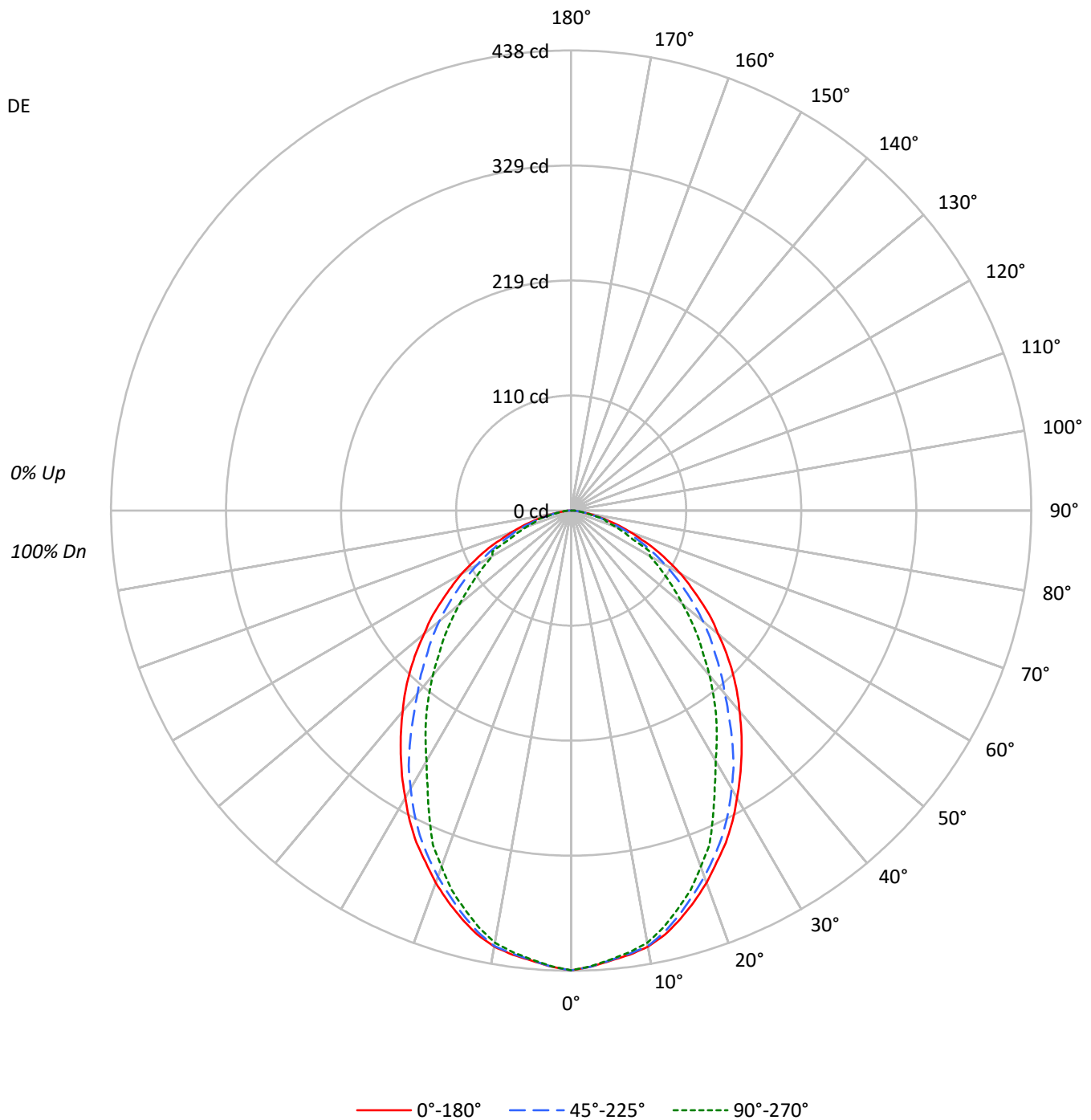
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	2355	2355	2355
5°	2323	2320	2318
10°	2303	2300	2283
15°	2241	2218	2187
20°	2159	2124	2066
25°	2070	2024	1898
30°	1962	1899	1710
35°	1858	1755	1582
40°	1752	1599	1440
45°	1652	1478	1302
50°	1529	1372	1160
55°	1414	1243	1040
60°	1296	1111	931
65°	1140	973	824
70°	939	851	700
75°	747	653	684
80°	502	471	440
85°	315	377	438

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1652 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.7	4.7
10°-20°	111.8	13.0
20°-30°	154.8	18.0
30°-40°	165.0	19.2
40°-50°	150.6	17.5
50°-60°	117.9	13.7
60°-70°	76.9	8.9
70°-80°	34.1	4.0
80°-90°	7.3	0.9
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°	307.3	35.8
0°-40°	472.3	55.0
0°-60°	740.8	86.2
0°-90°	859.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	859.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	438	438	438	438	438	
5°	430	430	430	429	429	41
15°	402	402	398	394	392	113
25°	348	346	341	329	320	160
35°	283	281	267	247	241	177
45°	217	212	194	178	171	167
55°	151	146	132	117	111	135
65°	90	84	76	78	65	88
75°	36	33	31	30	33	39
85°	5	6	6	7	7	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	437.6	437.6	437.6	437.6	437.6
2.5°	434.5	434.5	434.5	434.0	434.0
5°	430.0	429.5	429.5	429.0	429.0
7.5°	426.4	425.9	425.4	424.9	423.9
10°	421.4	421.4	420.9	418.3	417.8
12.5°	413.3	412.8	410.8	407.2	406.2
15°	402.2	402.2	398.1	394.1	392.5
17.5°	390.0	389.5	384.4	380.4	378.4
20°	376.9	375.8	370.8	364.2	360.7
22.5°	362.2	362.2	356.1	347.5	344.0
25°	348.5	346.5	340.9	328.8	319.7
27.5°	332.9	329.8	323.7	306.5	295.9
30°	315.7	314.1	305.5	283.3	275.2
32.5°	299.5	296.9	287.8	264.6	258.0
35°	282.8	280.7	267.1	246.9	240.8
37.5°	266.1	263.5	246.4	230.2	222.6
40°	249.4	246.4	227.6	213.0	204.9
42.5°	233.7	229.7	211.4	195.8	186.7
45°	217.0	212.5	194.2	178.1	171.0
47.5°	200.3	196.3	179.6	162.9	154.8
50°	182.6	179.1	163.9	147.2	138.6
52.5°	167.9	162.4	147.7	131.0	123.9
55°	150.7	146.2	132.5	116.9	110.8
57.5°	135.1	130.5	117.9	103.2	98.1
60°	120.4	113.8	103.2	90.5	86.5
62.5°	104.2	99.1	90.0	79.4	84.5
65°	89.5	84.5	76.4	77.9	64.7
67.5°	73.3	70.8	63.7	56.7	54.6
70°	59.7	56.7	54.1	46.5	44.5
72.5°	47.6	44.5	41.0	36.9	35.4
75°	35.9	33.4	31.4	29.8	32.9
77.5°	24.8	23.8	22.3	20.7	20.2
80°	16.2	15.7	15.2	14.7	14.2
82.5°	9.6	9.6	9.6	9.6	9.6
85°	5.1	5.6	6.1	6.6	7.1
87.5°	3.0	3.0	3.5	4.0	4.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)