

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: P559810

Luminaire Tested: FSR-12-2-LD4-1LO-35-UNV-81-85-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559810
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-81-85-EDD-90
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 887.0 lumens
Efficiency: N/A
Efficacy: 75.8 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

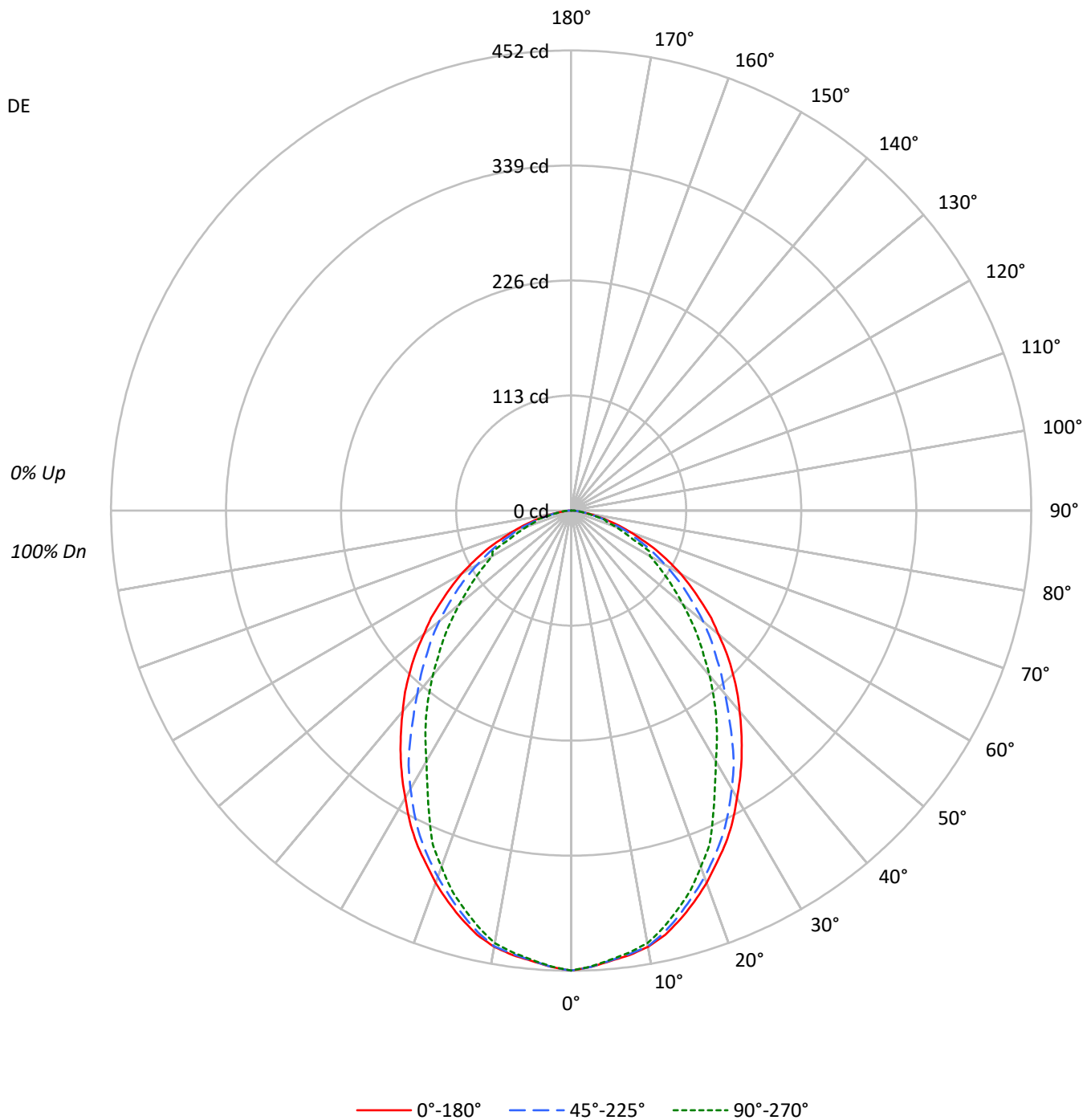
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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													100															
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87													87															
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75													75															
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65													65															
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56													56															
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50													50															
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44													44															
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40													40															
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36													36															
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33													33															
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30													30															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2432	2432	2432
5°	2399	2396	2393
10°	2378	2375	2358
15°	2314	2291	2258
20°	2229	2193	2133
25°	2137	2091	1960
30°	2025	1961	1766
35°	1918	1812	1633
40°	1809	1652	1486
45°	1706	1527	1344
50°	1579	1417	1198
55°	1461	1285	1073
60°	1338	1147	961
65°	1178	1005	852
70°	969	880	724
75°	771	674	707
80°	518	487	453
85°	321	389	451

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1706 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.1	4.7
10°-20°	115.4	13.0
20°-30°	159.8	18.0
30°-40°	170.4	19.2
40°-50°	155.4	17.5
50°-60°	121.8	13.7
60°-70°	79.4	8.9
70°-80°	35.2	4.0
80°-90°	7.5	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°	317.3	35.8
0°-40°	487.7	55.0
0°-60°	764.9	86.2
0°-90°	887.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	887.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	452	452	452	452	452	
5°	444	444	444	443	443	42
15°	415	415	411	407	405	117
25°	360	358	352	340	330	165
35°	292	290	276	255	249	183
45°	224	219	201	184	177	173
55°	156	151	137	121	114	140
65°	92	87	79	80	67	91
75°	37	34	32	31	34	40
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°	451.8	451.8	451.8	451.8	451.8
2.5°	448.7	448.7	448.7	448.2	448.2
5°	444.0	443.5	443.5	442.9	442.9
7.5°	440.3	439.8	439.3	438.8	437.7
10°	435.1	435.1	434.6	432.0	431.5
12.5°	426.8	426.2	424.1	420.5	419.4
15°	415.3	415.3	411.1	406.9	405.3
17.5°	402.7	402.2	397.0	392.8	390.7
20°	389.1	388.1	382.9	376.1	372.4
22.5°	374.0	374.0	367.7	358.8	355.2
25°	359.9	357.8	352.1	339.5	330.1
27.5°	343.7	340.6	334.3	316.5	305.6
30°	325.9	324.4	315.5	292.5	284.2
32.5°	309.2	306.6	297.2	273.2	266.4
35°	292.0	289.9	275.8	254.9	248.6
37.5°	274.8	272.1	254.4	237.7	229.8
40°	257.5	254.4	235.1	219.9	211.5
42.5°	241.3	237.1	218.3	202.1	192.7
45°	224.1	219.4	200.6	183.9	176.6
47.5°	206.8	202.7	185.4	168.2	159.8
50°	188.6	184.9	169.2	152.0	143.1
52.5°	173.4	167.7	152.5	135.3	128.0
55°	155.7	151.0	136.9	120.7	114.4
57.5°	139.5	134.8	121.7	106.6	101.3
60°	124.3	117.5	106.6	93.5	89.3
62.5°	107.6	102.4	93.0	82.0	87.2
65°	92.5	87.2	78.9	80.4	66.9
67.5°	75.7	73.1	65.8	58.5	56.4
70°	61.6	58.5	55.9	48.1	46.0
72.5°	49.1	46.0	42.3	38.1	36.6
75°	37.1	34.5	32.4	30.8	34.0
77.5°	25.6	24.6	23.0	21.4	20.9
80°	16.7	16.2	15.7	15.1	14.6
82.5°	9.9	9.9	9.9	9.9	9.9
85°	5.2	5.7	6.3	6.8	7.3
87.5°	3.1	3.1	3.7	4.2	4.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)