

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: P559013

Luminaire Tested: FSR-12-1-LD4-1STD-50-UNV-93-86-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559013
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-12-1-LD4-1STD-50-UNV-93-86-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 785.0 lumens
Efficiency: N/A
Efficacy: 94.6 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

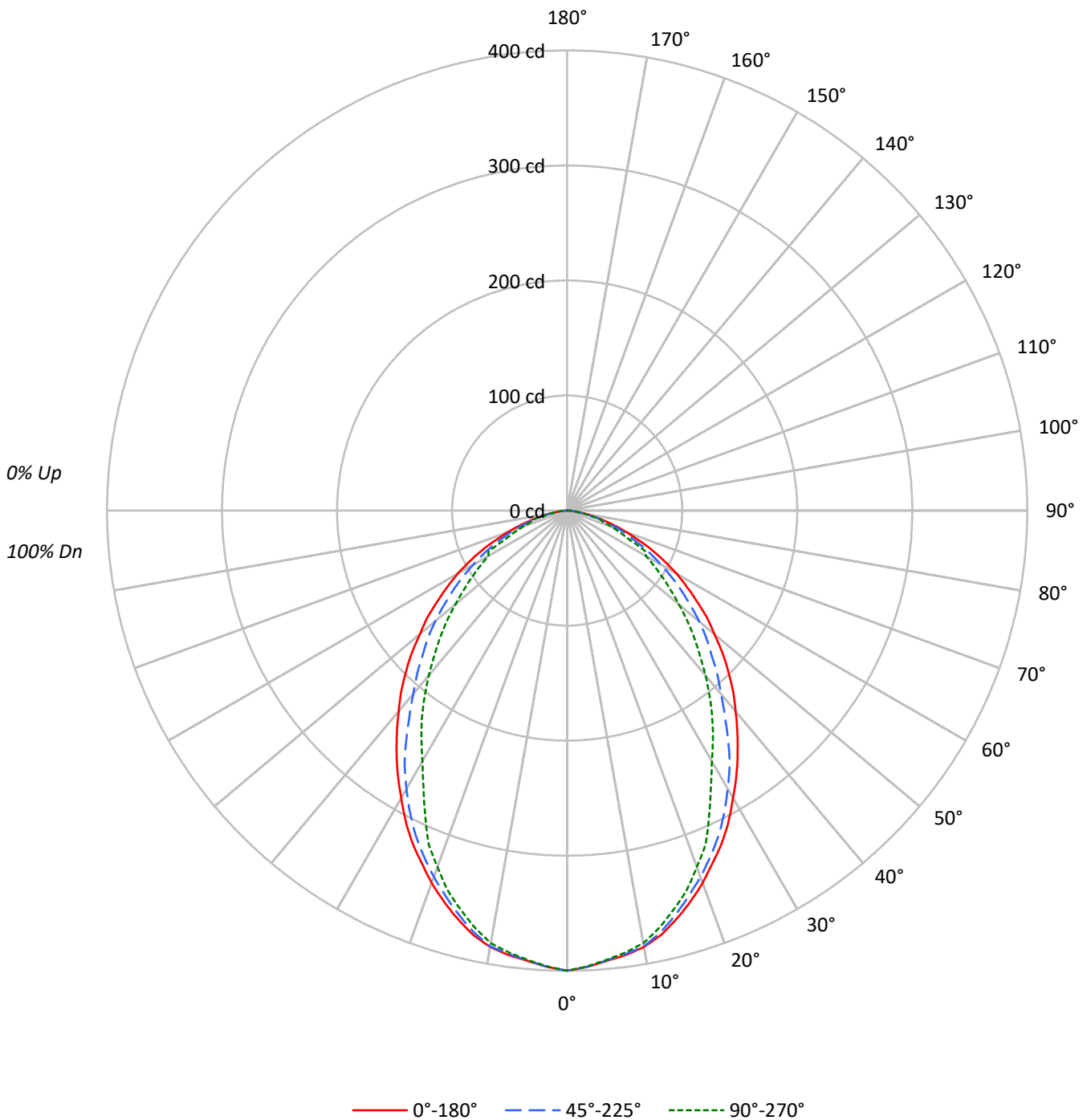
Input Watts (W): 8.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	4304	4304	4304
5°	4245	4241	4236
10°	4209	4204	4173
15°	4095	4054	3997
20°	3945	3881	3775
25°	3783	3701	3470
30°	3586	3470	3126
35°	3395	3208	2891
40°	3202	2923	2630
45°	3019	2702	2378
50°	2795	2509	2122
55°	2586	2273	1899
60°	2368	2030	1701
65°	2083	1778	1508
70°	1715	1558	1281
75°	1364	1194	1248
80°	917	862	800
85°	568	679	803

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3019 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.2	4.7
10°-20°	102.2	13.0
20°-30°	141.4	18.0
30°-40°	150.8	19.2
40°-50°	137.6	17.5
50°-60°	107.8	13.7
60°-70°	70.2	8.9
70°-80°	31.1	4.0
80°-90°	6.7	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°	280.8	35.8
0°-40°	431.6	55.0
0°-60°	677.0	86.2
0°-90°	785.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	785.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	400	400	400	400	400	
5°	393	392	392	392	392	37
15°	368	368	364	360	359	103
25°	318	317	312	300	292	146
35°	258	257	244	226	220	162
45°	198	194	178	163	156	153
55°	138	134	121	107	101	124
65°	82	77	70	71	59	81
75°	33	30	29	27	30	35
85°	5	5	6	6	6	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	399.9	399.9	399.9	399.9	399.9
2.5°	397.1	397.1	397.1	396.6	396.6
5°	392.9	392.5	392.5	392.0	392.0
7.5°	389.7	389.2	388.8	388.3	387.4
10°	385.1	385.1	384.6	382.3	381.8
12.5°	377.7	377.2	375.4	372.1	371.2
15°	367.5	367.5	363.8	360.1	358.7
17.5°	356.4	356.0	351.3	347.6	345.8
20°	344.4	343.5	338.8	332.8	329.6
22.5°	331.0	331.0	325.4	317.6	314.3
25°	318.5	316.7	311.6	300.5	292.2
27.5°	304.2	301.4	295.9	280.1	270.4
30°	288.5	287.1	279.2	258.9	251.5
32.5°	273.7	271.4	263.0	241.8	235.8
35°	258.4	256.6	244.1	225.6	220.0
37.5°	243.2	240.8	225.1	210.3	203.4
40°	227.9	225.1	208.0	194.6	187.2
42.5°	213.6	209.9	193.2	178.9	170.6
45°	198.3	194.2	177.5	162.7	156.2
47.5°	183.1	179.4	164.1	148.9	141.5
50°	166.9	163.6	149.8	134.5	126.7
52.5°	153.5	148.4	135.0	119.7	113.3
55°	137.8	133.6	121.1	106.8	101.2
57.5°	123.4	119.3	107.7	94.3	89.7
60°	110.0	104.0	94.3	82.7	79.0
62.5°	95.2	90.6	82.3	72.6	77.2
65°	81.8	77.2	69.8	71.2	59.2
67.5°	67.0	64.7	58.2	51.8	49.9
70°	54.5	51.8	49.5	42.5	40.7
72.5°	43.5	40.7	37.4	33.7	32.4
75°	32.8	30.5	28.7	27.3	30.0
77.5°	22.7	21.7	20.3	19.0	18.5
80°	14.8	14.3	13.9	13.4	12.9
82.5°	8.8	8.8	8.8	8.8	8.8
85°	4.6	5.1	5.5	6.0	6.5
87.5°	2.8	2.8	3.2	3.7	4.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)