

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: P559283

Luminaire Tested: FSR-12-1-LD4-2LO-40-UNV-80-85-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559283
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-LD4-2LO-40-UNV-80-85-EDD
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1163.0 lumens
Efficiency: N/A
Efficacy: 99.4 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

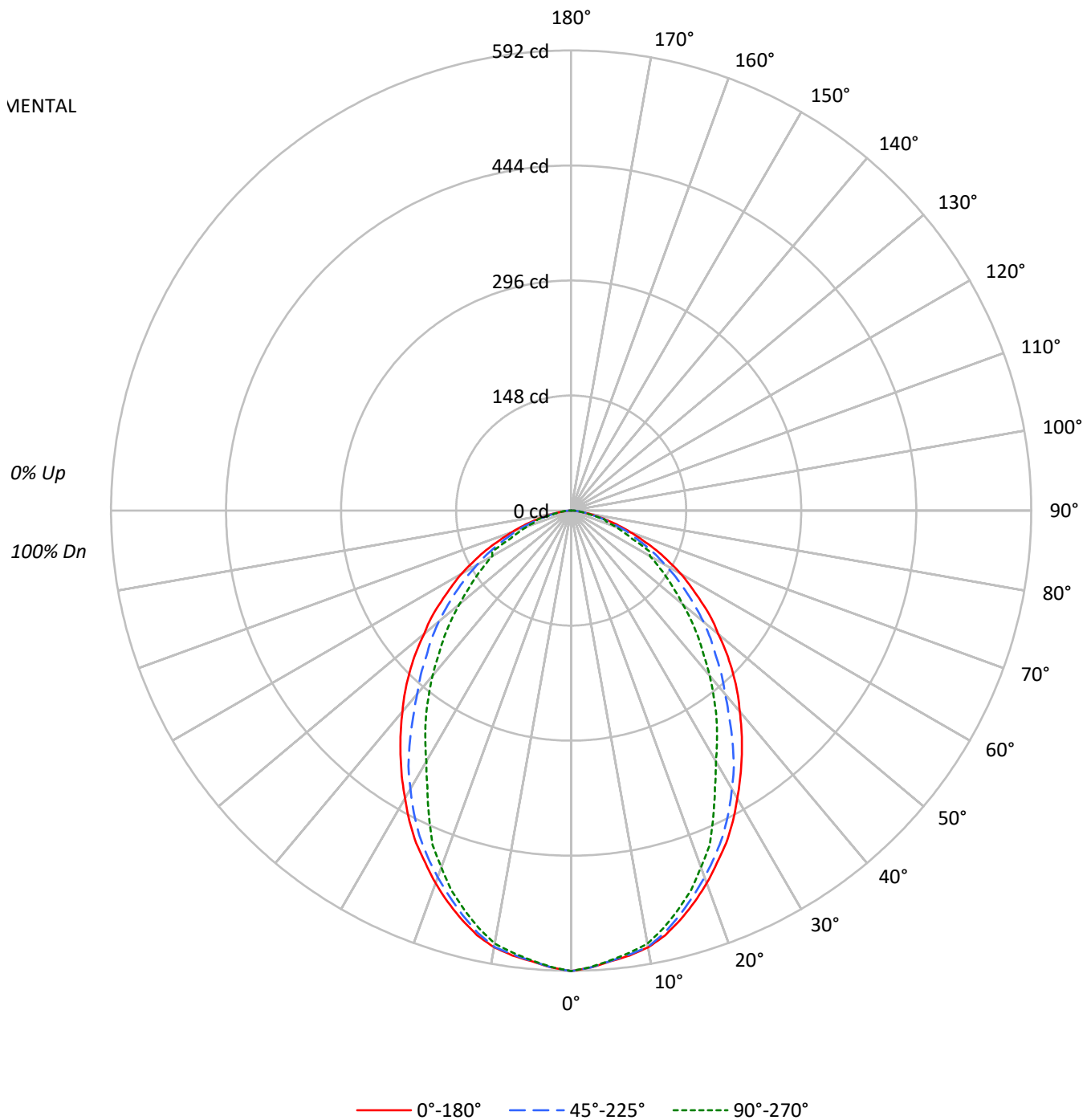
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6377	6377	6377
5°	6290	6283	6276
10°	6236	6228	6183
15°	6068	6006	5923
20°	5844	5750	5593
25°	5605	5482	5140
30°	5312	5142	4631
35°	5030	4752	4284
40°	4744	4331	3898
45°	4472	4004	3524
50°	4140	3716	3143
55°	3830	3367	2815
60°	3509	3007	2521
65°	3087	2634	2234
70°	2543	2307	1898
75°	2021	1768	1851
80°	1358	1271	1190
85°	840	1013	1186

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4472 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.1	4.7
10°-20°	151.3	13.0
20°-30°	209.5	18.0
30°-40°	223.4	19.2
40°-50°	203.8	17.5
50°-60°	159.7	13.7
60°-70°	104.1	8.9
70°-80°	46.1	4.0
80°-90°	9.9	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°	416.0	35.8
0°-40°	639.4	55.0
0°-60°	1002.9	86.2
0°-90°	1163.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1163.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	592	592	592	592	592	
5°	582	582	582	581	581	55
15°	544	544	539	534	532	153
25°	472	469	462	445	433	217
35°	383	380	362	334	326	239
45°	294	288	263	241	232	226
55°	204	198	179	158	150	183
65°	121	114	103	106	88	119
75°	49	45	42	40	44	52
85°	7	8	8	9	10	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	592.4	592.4	592.4	592.4	592.4
2.5°	588.3	588.3	588.3	587.6	587.6
5°	582.1	581.5	581.5	580.8	580.8
7.5°	577.3	576.7	576.0	575.3	573.9
10°	570.5	570.5	569.8	566.4	565.7
12.5°	559.5	558.9	556.1	551.3	550.0
15°	544.5	544.5	539.0	533.5	531.5
17.5°	528.0	527.4	520.5	515.0	512.3
20°	510.2	508.9	502.0	493.1	488.3
22.5°	490.4	490.4	482.2	470.5	465.7
25°	471.9	469.1	461.6	445.2	432.8
27.5°	450.6	446.5	438.3	415.0	400.7
30°	427.4	425.3	413.7	383.5	372.6
32.5°	405.4	402.0	389.7	358.2	349.3
35°	382.8	380.1	361.6	334.2	326.0
37.5°	360.2	356.8	333.5	311.6	301.3
40°	337.6	333.5	308.2	288.3	277.4
42.5°	316.4	310.9	286.3	265.0	252.7
45°	293.8	287.6	263.0	241.1	231.5
47.5°	271.2	265.7	243.1	220.5	209.6
50°	247.2	242.4	221.9	199.3	187.7
52.5°	227.4	219.8	200.0	177.4	167.8
55°	204.1	197.9	179.4	158.2	150.0
57.5°	182.9	176.7	159.6	139.7	132.9
60°	163.0	154.1	139.7	122.6	117.1
62.5°	141.1	134.2	121.9	107.5	114.4
65°	121.2	114.4	103.4	105.5	87.7
67.5°	99.3	95.9	86.3	76.7	74.0
70°	80.8	76.7	73.3	63.0	60.3
72.5°	64.4	60.3	55.5	50.0	47.9
75°	48.6	45.2	42.5	40.4	44.5
77.5°	33.6	32.2	30.1	28.1	27.4
80°	21.9	21.2	20.5	19.9	19.2
82.5°	13.0	13.0	13.0	13.0	13.0
85°	6.8	7.5	8.2	8.9	9.6
87.5°	4.1	4.1	4.8	5.5	6.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)