

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: P558533

Luminaire Tested: FSR-12-1-LD4-1HI-40-UNV-81-86-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558533
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-LD4-1HI-40-UNV-81-86-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 897.0 lumens
Efficiency: N/A
Efficacy: 83.1 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

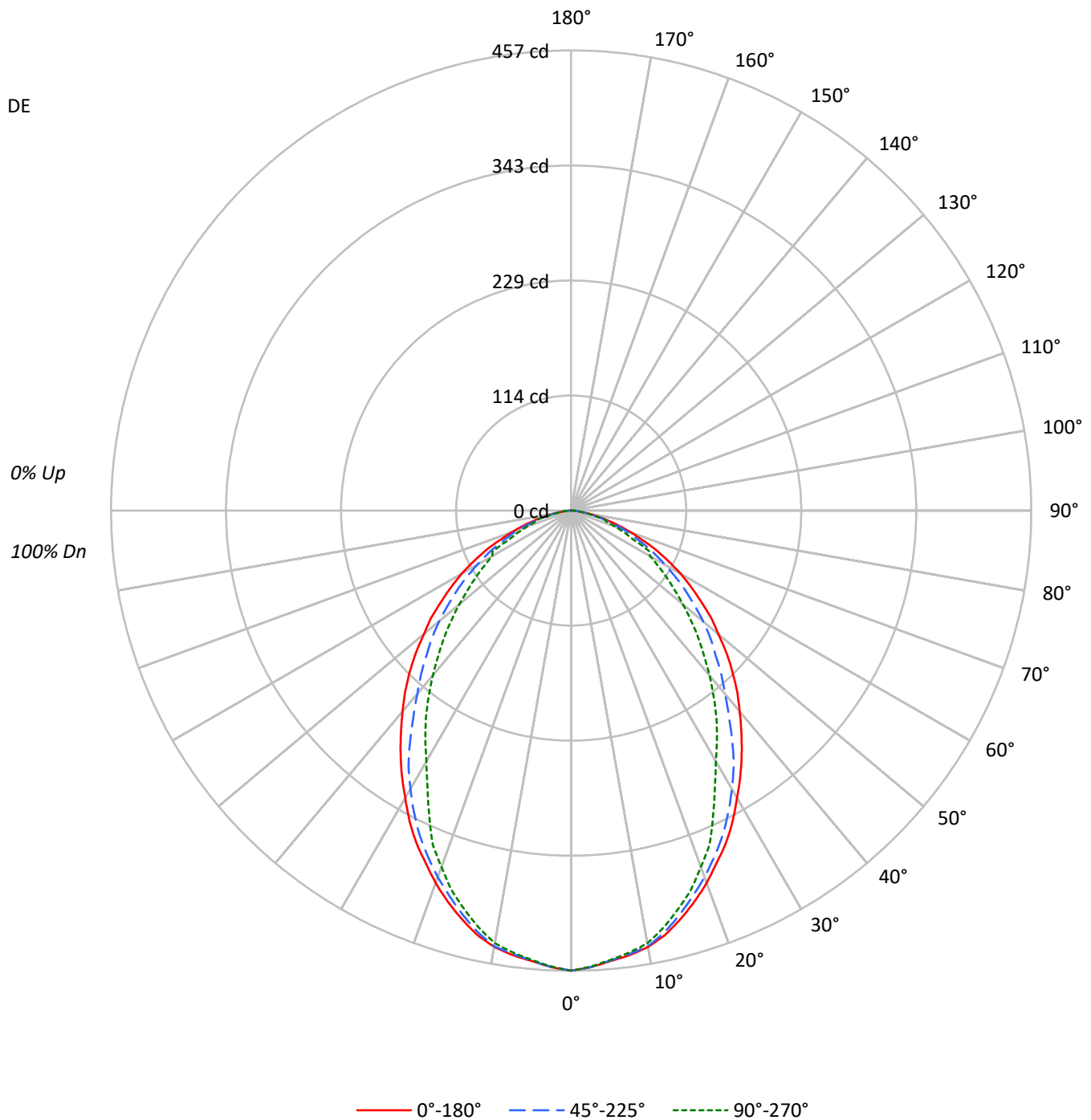
Input Watts (W): 10.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P558533

CATALOG NUMBER: FSR-12-1-LD4-1HI-40-UNV-81-86-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P558533

CATALOG NUMBER: FSR-12-1-LD4-1HI-40-UNV-81-86-EDD

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°	4918	4918	4918
5°	4851	4846	4840
10°	4809	4804	4769
15°	4679	4632	4568
20°	4507	4435	4314
25°	4323	4228	3964
30°	4097	3966	3572
35°	3880	3665	3303
40°	3659	3340	3006
45°	3449	3087	2717
50°	3193	2865	2423
55°	2954	2597	2171
60°	2706	2321	1944
65°	2381	2032	1722
70°	1961	1778	1463
75°	1560	1364	1426
80°	1048	979	917
85°	655	778	914

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3449 cd/sqm



TEST NUMBER: P558533

CATALOG NUMBER: FSR-12-1-LD4-1HI-40-UNV-81-86-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.5	4.7
10°-20°	116.7	13.0
20°-30°	161.6	18.0
30°-40°	172.3	19.2
40°-50°	157.2	17.5
50°-60°	123.2	13.7
60°-70°	80.3	8.9
70°-80°	35.6	4.0
80°-90°	7.6	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°	320.9	35.8
0°-40°	493.2	55.0
0°-60°	773.5	86.2
0°-90°	897.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	897.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	457	457	457	457	457	
5°	449	448	448	448	448	43
15°	420	420	416	412	410	118
25°	364	362	356	343	334	167
35°	295	293	279	258	251	185
45°	227	222	203	186	178	175
55°	157	153	138	122	116	141
65°	94	88	80	81	68	92
75°	38	35	33	31	34	40
85°	5	6	6	7	7	7
90°	0	0	0	0	0	



TEST NUMBER: P558533

CATALOG NUMBER: FSR-12-1-LD4-1HI-40-UNV-81-86-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	456.9	456.9	456.9	456.9	456.9
2.5°	453.8	453.8	453.8	453.2	453.2
5°	449.0	448.5	448.5	447.9	447.9
7.5°	445.3	444.8	444.2	443.7	442.7
10°	440.0	440.0	439.5	436.8	436.3
12.5°	431.6	431.0	428.9	425.2	424.2
15°	419.9	419.9	415.7	411.5	409.9
17.5°	407.3	406.7	401.5	397.2	395.1
20°	393.5	392.5	387.2	380.3	376.6
22.5°	378.2	378.2	371.9	362.9	359.2
25°	364.0	361.8	356.0	343.4	333.8
27.5°	347.6	344.4	338.1	320.1	309.0
30°	329.6	328.0	319.1	295.8	287.4
32.5°	312.7	310.1	300.6	276.3	269.4
35°	295.3	293.2	278.9	257.8	251.4
37.5°	277.8	275.2	257.2	240.3	232.4
40°	260.4	257.2	237.7	222.4	213.9
42.5°	244.0	239.8	220.8	204.4	194.9
45°	226.6	221.9	202.8	185.9	178.5
47.5°	209.2	205.0	187.5	170.1	161.6
50°	190.7	187.0	171.1	153.7	144.7
52.5°	175.4	169.6	154.2	136.8	129.4
55°	157.4	152.7	138.4	122.0	115.7
57.5°	141.0	136.3	123.1	107.8	102.5
60°	125.7	118.9	107.8	94.6	90.3
62.5°	108.8	103.5	94.0	82.9	88.2
65°	93.5	88.2	79.8	81.3	67.6
67.5°	76.6	74.0	66.6	59.2	57.0
70°	62.3	59.2	56.5	48.6	46.5
72.5°	49.7	46.5	42.8	38.6	37.0
75°	37.5	34.9	32.8	31.2	34.3
77.5°	25.9	24.8	23.2	21.7	21.1
80°	16.9	16.4	15.8	15.3	14.8
82.5°	10.0	10.0	10.0	10.0	10.0
85°	5.3	5.8	6.3	6.9	7.4
87.5°	3.2	3.2	3.7	4.2	4.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)