

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: P559824

Luminaire Tested: FSR-12-2-LD4-1LO-35-UNV-82-84-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559824
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-82-84-EDD-90
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 886.0 lumens
Efficiency: N/A
Efficacy: 75.7 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

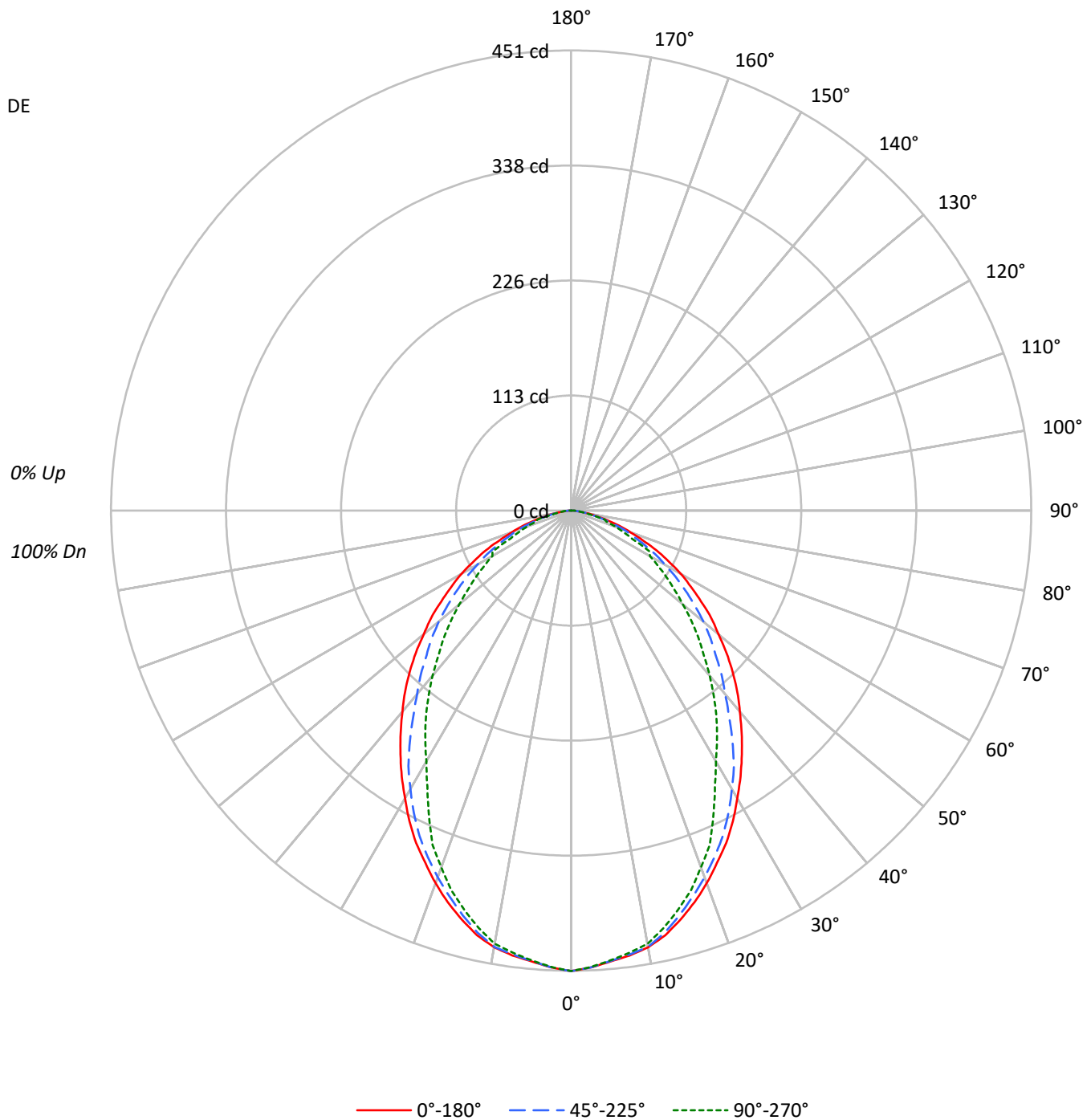
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P559824

CATALOG NUMBER: FSR-12-2-LD4-1LO-35-UNV-82-84-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P559824

CATALOG NUMBER: FSR-12-2-LD4-1LO-35-UNV-82-84-EDD-90

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	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°	2429	2429	2429
5°	2396	2393	2390
10°	2375	2372	2355
15°	2311	2288	2256
20°	2226	2190	2131
25°	2135	2089	1958
30°	2023	1958	1764
35°	1917	1810	1632
40°	1807	1650	1485
45°	1703	1525	1343
50°	1577	1415	1197
55°	1459	1283	1072
60°	1337	1145	960
65°	1177	1004	851
70°	969	878	722
75°	769	672	705
80°	518	487	453
85°	321	389	451

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1703 cd/sqm



TEST NUMBER: P559824

CATALOG NUMBER: FSR-12-2-LD4-1LO-35-UNV-82-84-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.0	4.7
10°-20°	115.3	13.0
20°-30°	159.6	18.0
30°-40°	170.2	19.2
40°-50°	155.3	17.5
50°-60°	121.6	13.7
60°-70°	79.3	8.9
70°-80°	35.1	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°	316.9	35.8
0°-40°	487.1	55.0
0°-60°	764.1	86.2
0°-90°	886.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	886.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	451	451	451	451	451	
5°	444	443	443	442	442	42
15°	415	415	411	406	405	117
25°	360	357	352	339	330	165
35°	292	290	276	255	248	182
45°	224	219	200	184	176	172
55°	156	151	137	120	114	139
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	



TEST NUMBER: P559824

CATALOG NUMBER: FSR-12-2-LD4-1LO-35-UNV-82-84-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	451.3	451.3	451.3	451.3	451.3
2.5°	448.2	448.2	448.2	447.7	447.7
5°	443.5	443.0	443.0	442.4	442.4
7.5°	439.8	439.3	438.8	438.3	437.2
10°	434.6	434.6	434.1	431.5	431.0
12.5°	426.3	425.8	423.7	420.0	419.0
15°	414.8	414.8	410.6	406.4	404.9
17.5°	402.3	401.8	396.5	392.4	390.3
20°	388.7	387.7	382.4	375.7	372.0
22.5°	373.6	373.6	367.3	358.4	354.8
25°	359.5	357.4	351.7	339.1	329.7
27.5°	343.3	340.2	333.9	316.2	305.2
30°	325.6	324.0	315.1	292.2	283.8
32.5°	308.9	306.3	296.9	272.9	266.1
35°	291.7	289.6	275.5	254.6	248.4
37.5°	274.4	271.8	254.1	237.4	229.6
40°	257.2	254.1	234.8	219.7	211.3
42.5°	241.1	236.9	218.1	201.9	192.5
45°	223.8	219.1	200.4	183.7	176.4
47.5°	206.6	202.4	185.2	168.0	159.7
50°	188.4	184.7	169.0	151.8	143.0
52.5°	173.2	167.5	152.4	135.1	127.8
55°	155.5	150.8	136.7	120.5	114.3
57.5°	139.3	134.6	121.6	106.4	101.2
60°	124.2	117.4	106.4	93.4	89.2
62.5°	107.5	102.3	92.9	81.9	87.1
65°	92.4	87.1	78.8	80.4	66.8
67.5°	75.7	73.0	65.7	58.4	56.3
70°	61.6	58.4	55.8	48.0	45.9
72.5°	49.0	45.9	42.3	38.1	36.5
75°	37.0	34.4	32.3	30.8	33.9
77.5°	25.6	24.5	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)