

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: P559444

Luminaire Tested: FSR-12-1-LD4-2STD-35-UNV-82-86-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559444
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-LD4-2STD-35-UNV-82-86-EDD-90
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1187.0 lumens
Efficiency: N/A
Efficacy: 71.5 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

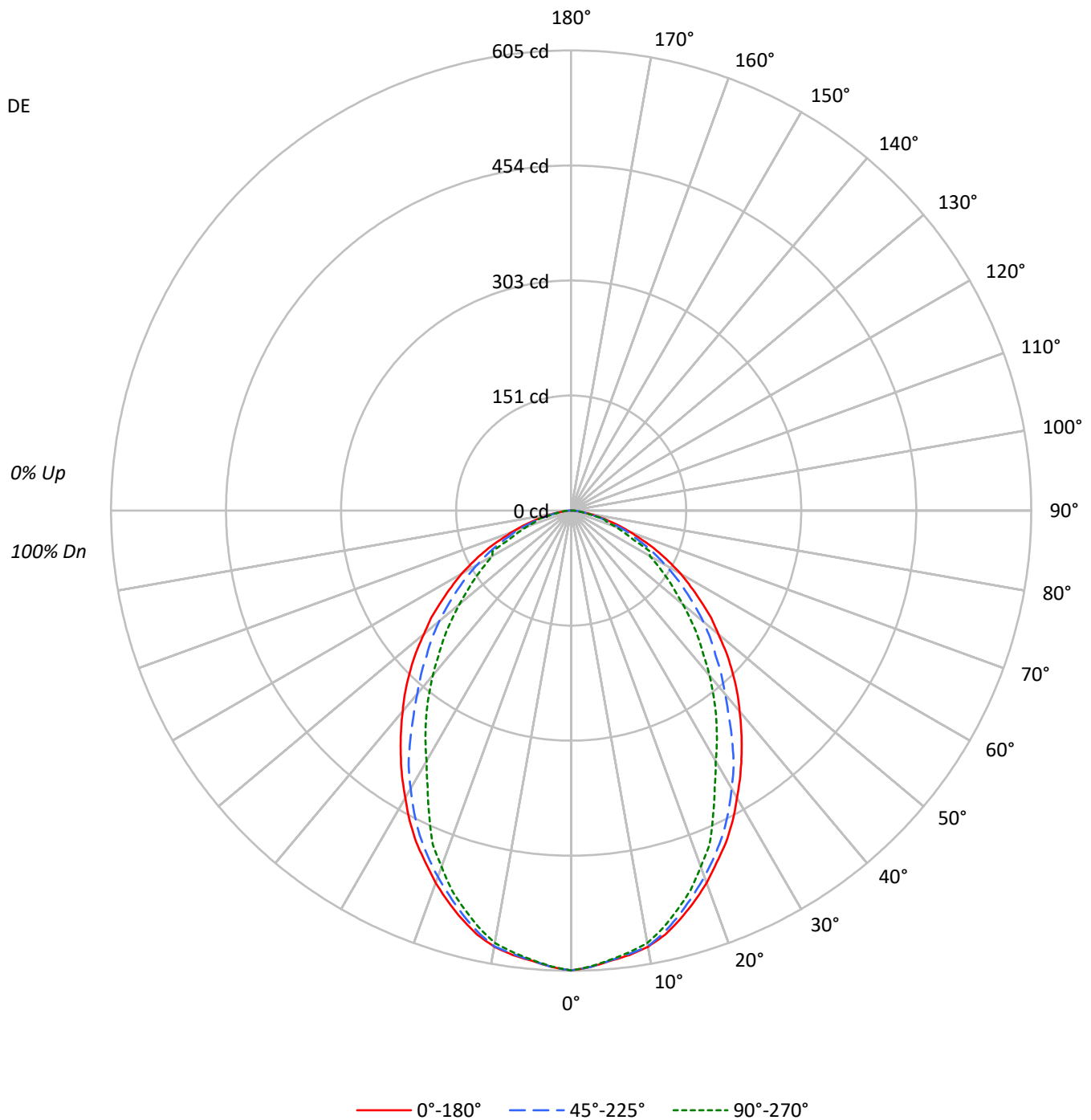
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P559444

CATALOG NUMBER: FSR-12-1-LD4-2STD-35-UNV-82-86-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P559444

CATALOG NUMBER: FSR-12-1-LD4-2STD-35-UNV-82-86-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	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°	6508	6508	6508
5°	6420	6413	6405
10°	6365	6357	6311
15°	6193	6130	6044
20°	5966	5869	5709
25°	5720	5595	5247
30°	5422	5248	4727
35°	5134	4850	4372
40°	4842	4421	3978
45°	4565	4086	3597
50°	4225	3793	3207
55°	3909	3436	2873
60°	3582	3070	2573
65°	3151	2690	2280
70°	2596	2354	1936
75°	2063	1801	1888
80°	1389	1302	1215
85°	865	1037	1210

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4565 cd/sqm

TEST NUMBER: P559444

CATALOG NUMBER: FSR-12-1-LD4-2STD-35-UNV-82-86-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.3	4.7
10°-20°	154.5	13.0
20°-30°	213.9	18.0
30°-40°	228.0	19.2
40°-50°	208.0	17.5
50°-60°	163.0	13.7
60°-70°	106.2	8.9
70°-80°	47.1	4.0
80°-90°	10.1	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°	424.6	35.8
0°-40°	652.6	55.0
0°-60°	1023.6	86.2
0°-90°	1187.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1187.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	605	605	605	605	605	
5°	594	594	594	593	593	56
15°	556	556	550	544	542	156
25°	482	479	471	454	442	221
35°	391	388	369	341	333	244
45°	300	294	268	246	236	231
55°	208	202	183	162	153	187
65°	124	117	106	108	90	122
75°	50	46	43	41	45	53
85°	7	8	8	9	10	10
90°	0	0	0	0	0	



TEST NUMBER: P559444

CATALOG NUMBER: FSR-12-1-LD4-2STD-35-UNV-82-86-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	604.6	604.6	604.6	604.6	604.6
2.5°	600.4	600.4	600.4	599.7	599.7
5°	594.2	593.5	593.5	592.8	592.8
7.5°	589.3	588.6	587.9	587.2	585.8
10°	582.3	582.3	581.6	578.1	577.4
12.5°	571.1	570.4	567.6	562.7	561.3
15°	555.7	555.7	550.1	544.5	542.4
17.5°	538.9	538.2	531.2	525.7	522.9
20°	520.8	519.4	512.4	503.3	498.4
22.5°	500.5	500.5	492.1	480.2	475.3
25°	481.6	478.8	471.1	454.4	441.8
27.5°	459.9	455.8	447.4	423.6	408.9
30°	436.2	434.1	422.2	391.4	380.3
32.5°	413.8	410.3	397.7	365.6	356.5
35°	390.7	387.9	369.1	341.1	332.7
37.5°	367.7	364.2	340.4	318.0	307.6
40°	344.6	340.4	314.6	294.3	283.1
42.5°	322.9	317.3	292.2	270.5	257.9
45°	299.9	293.6	268.4	246.1	236.3
47.5°	276.8	271.2	248.1	225.1	213.9
50°	252.3	247.4	226.5	203.4	191.5
52.5°	232.1	224.4	204.1	181.0	171.3
55°	208.3	202.0	183.1	161.5	153.1
57.5°	186.6	180.3	162.9	142.6	135.6
60°	166.4	157.3	142.6	125.1	119.5
62.5°	144.0	137.0	124.4	109.7	116.7
65°	123.7	116.7	105.6	107.6	89.5
67.5°	101.4	97.9	88.1	78.3	75.5
70°	82.5	78.3	74.8	64.3	61.5
72.5°	65.7	61.5	56.6	51.0	48.9
75°	49.6	46.1	43.3	41.2	45.4
77.5°	34.3	32.9	30.8	28.7	28.0
80°	22.4	21.7	21.0	20.3	19.6
82.5°	13.3	13.3	13.3	13.3	13.3
85°	7.0	7.7	8.4	9.1	9.8
87.5°	4.2	4.2	4.9	5.6	6.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)