

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: P560072

Luminaire Tested: FSR-12-2-LD4-1STD-40-UNV-81-88-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560072
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-LD4-1STD-40-UNV-81-88-EDD-90
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1038.0 lumens
Efficiency: N/A
Efficacy: 62.5 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

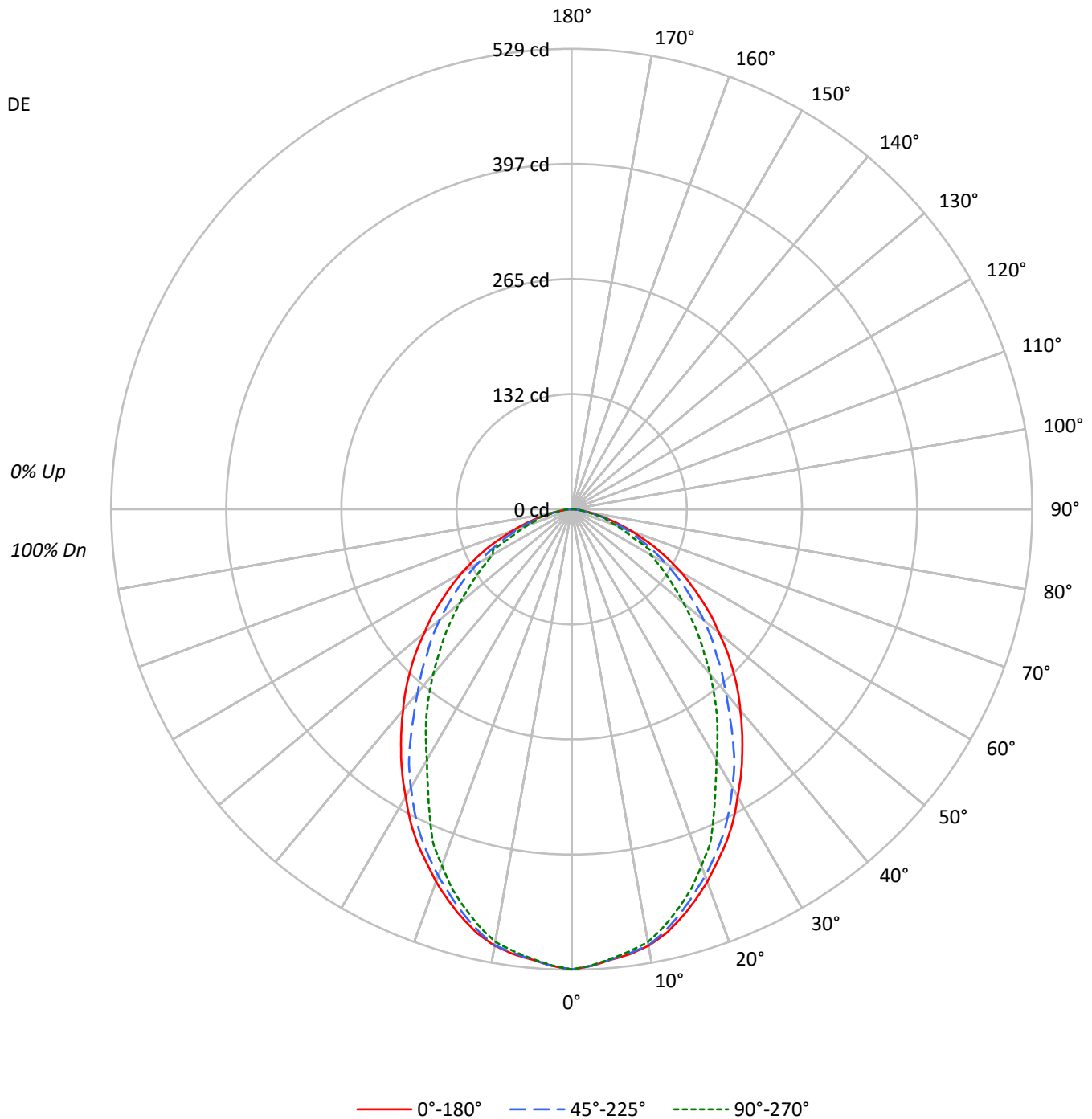
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P560072

CATALOG NUMBER: FSR-12-2-LD4-1STD-40-UNV-81-88-EDD-90

Luminous Intensity Polar Plot



TEST NUMBER: P560072

CATALOG NUMBER: FSR-12-2-LD4-1STD-40-UNV-81-88-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	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°	2845	2845	2845
5°	2807	2804	2801
10°	2783	2779	2759
15°	2708	2681	2643
20°	2608	2566	2496
25°	2501	2447	2294
30°	2370	2294	2066
35°	2245	2120	1912
40°	2118	1933	1740
45°	1996	1786	1572
50°	1848	1658	1402
55°	1710	1503	1256
60°	1566	1342	1125
65°	1378	1175	996
70°	1135	1029	847
75°	902	788	826
80°	607	567	530
85°	377	451	531

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1996 cd/sqm



TEST NUMBER: P560072

CATALOG NUMBER: FSR-12-2-LD4-1STD-40-UNV-81-88-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.2	4.7
10°-20°	135.1	13.0
20°-30°	187.0	18.0
30°-40°	199.4	19.2
40°-50°	181.9	17.5
50°-60°	142.5	13.7
60°-70°	92.9	8.9
70°-80°	41.2	4.0
80°-90°	8.8	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°	371.3	35.8
0°-40°	570.7	55.0
0°-60°	895.1	86.2
0°-90°	1038.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1038.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	529	529	529	529	529	
5°	520	519	519	518	518	49
15°	486	486	481	476	474	137
25°	421	419	412	397	386	193
35°	342	339	323	298	291	214
45°	262	257	235	215	207	202
55°	182	177	160	141	134	163
65°	108	102	92	94	78	107
75°	43	40	38	36	40	47
85°	6	7	7	8	9	8
90°	0	0	0	0	0	



TEST NUMBER: P560072

CATALOG NUMBER: FSR-12-2-LD4-1STD-40-UNV-81-88-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	528.7	528.7	528.7	528.7	528.7
2.5°	525.1	525.1	525.1	524.5	524.5
5°	519.6	519.0	519.0	518.4	518.4
7.5°	515.3	514.7	514.1	513.5	512.2
10°	509.2	509.2	508.6	505.5	504.9
12.5°	499.4	498.8	496.3	492.1	490.8
15°	486.0	486.0	481.1	476.2	474.3
17.5°	471.3	470.7	464.6	459.7	457.2
20°	455.4	454.2	448.1	440.1	435.8
22.5°	437.7	437.7	430.3	419.9	415.7
25°	421.2	418.7	412.0	397.3	386.3
27.5°	402.2	398.5	391.2	370.4	357.6
30°	381.4	379.6	369.2	342.3	332.5
32.5°	361.9	358.8	347.8	319.7	311.7
35°	341.7	339.3	322.7	298.3	291.0
37.5°	321.5	318.5	297.7	278.1	269.0
40°	301.4	297.7	275.1	257.3	247.6
42.5°	282.4	277.5	255.5	236.6	225.6
45°	262.2	256.7	234.7	215.2	206.6
47.5°	242.1	237.2	217.0	196.8	187.0
50°	220.7	216.4	198.0	177.9	167.5
52.5°	202.9	196.2	178.5	158.3	149.8
55°	182.2	176.7	160.2	141.2	133.9
57.5°	163.2	157.7	142.4	124.7	118.6
60°	145.5	137.5	124.7	109.4	104.5
62.5°	125.9	119.8	108.8	96.0	102.1
65°	108.2	102.1	92.3	94.1	78.2
67.5°	88.6	85.6	77.0	68.5	66.0
70°	72.1	68.5	65.4	56.2	53.8
72.5°	57.5	53.8	49.5	44.6	42.8
75°	43.4	40.3	37.9	36.1	39.7
77.5°	30.0	28.7	26.9	25.1	24.5
80°	19.6	18.9	18.3	17.7	17.1
82.5°	11.6	11.6	11.6	11.6	11.6
85°	6.1	6.7	7.3	7.9	8.6
87.5°	3.7	3.7	4.3	4.9	5.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)