

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: P560728

Luminaire Tested: FSR-12-2-LD4-2STD-50-UNV-82-88-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560728
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-LD4-2STD-50-UNV-82-88-EDD-90
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2141.0 lumens
Efficiency: N/A
Efficacy: 64.3 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

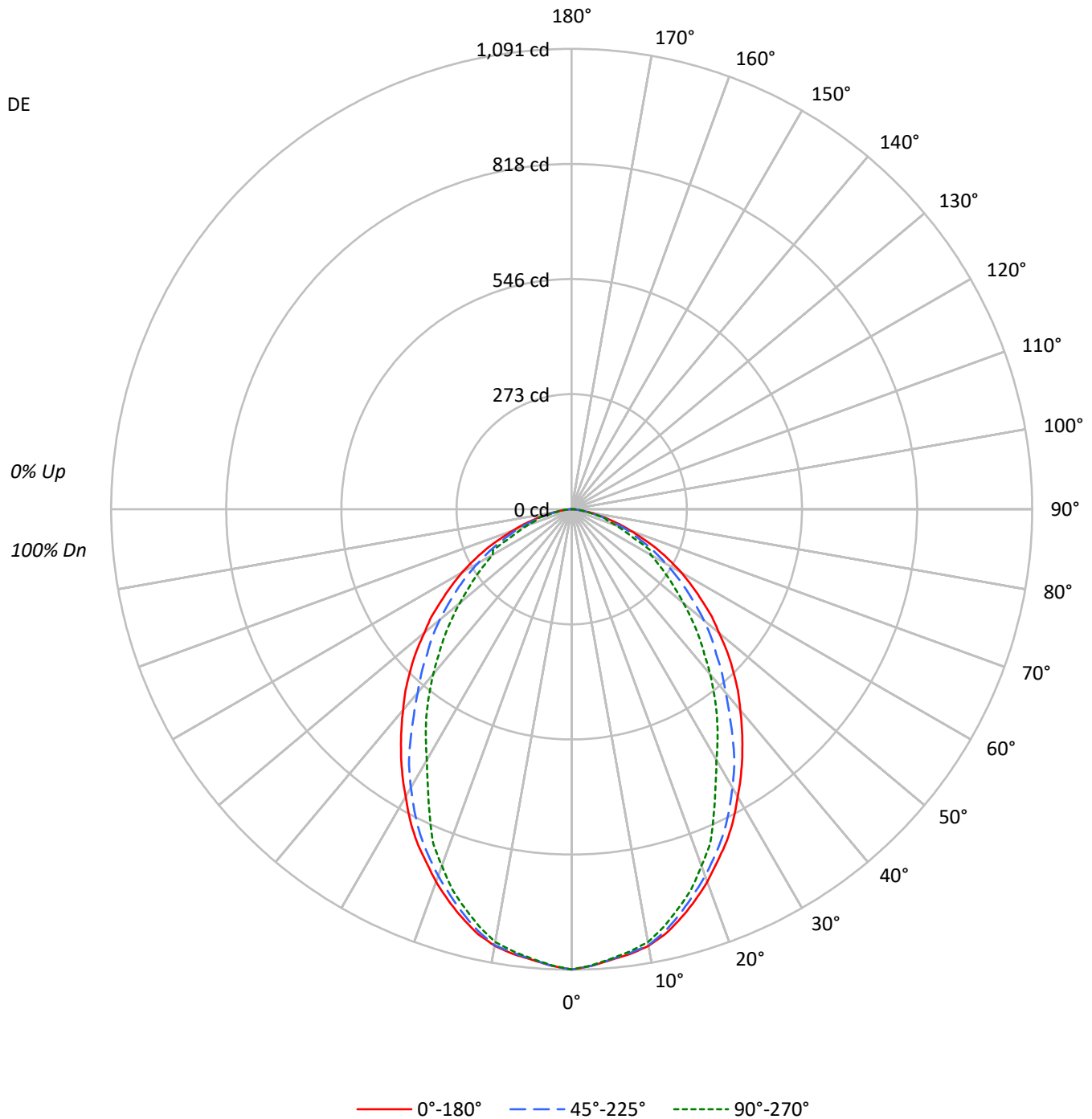
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	5870	5870	5870
5°	5790	5783	5776
10°	5740	5733	5691
15°	5585	5529	5451
20°	5380	5293	5149
25°	5159	5046	4732
30°	4889	4732	4263
35°	4631	4374	3943
40°	4367	3986	3587
45°	4117	3685	3244
50°	3811	3420	2893
55°	3525	3099	2591
60°	3230	2768	2321
65°	2842	2425	2055
70°	2341	2123	1747
75°	1861	1626	1705
80°	1249	1172	1094
85°	778	932	1093

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4117 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.5	4.7
10°-20°	278.6	13.0
20°-30°	385.7	18.0
30°-40°	411.3	19.2
40°-50°	375.2	17.5
50°-60°	294.0	13.7
60°-70°	191.6	8.9
70°-80°	84.9	4.0
80°-90°	18.2	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°	765.9	35.8
0°-40°	1177.1	55.0
0°-60°	1846.3	86.2
0°-90°	2141.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2141.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1091	1091	1091	1091	1091	
5°	1072	1070	1070	1069	1069	102
15°	1002	1002	992	982	978	282
25°	869	864	850	820	797	399
35°	705	700	666	615	600	441
45°	541	530	484	444	426	417
55°	376	364	330	291	276	337
65°	223	211	190	194	161	220
75°	90	83	78	74	82	96
85°	13	14	15	16	18	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1090.6	1090.6	1090.6	1090.6	1090.6
2.5°	1083.0	1083.0	1083.0	1081.8	1081.8
5°	1071.7	1070.4	1070.4	1069.2	1069.2
7.5°	1062.9	1061.6	1060.3	1059.1	1056.6
10°	1050.3	1050.3	1049.0	1042.7	1041.4
12.5°	1030.1	1028.8	1023.8	1014.9	1012.4
15°	1002.3	1002.3	992.3	982.2	978.4
17.5°	972.1	970.8	958.2	948.1	943.1
20°	939.3	936.8	924.2	907.8	899.0
22.5°	902.7	902.7	887.6	866.2	857.3
25°	868.7	863.7	849.8	819.5	796.8
27.5°	829.6	822.0	806.9	764.0	737.6
30°	786.7	783.0	761.5	706.1	685.9
32.5°	746.4	740.1	717.4	659.4	643.0
35°	704.8	699.7	665.7	615.3	600.1
37.5°	663.2	656.9	614.0	573.7	554.8
40°	621.6	614.0	567.4	530.8	510.6
42.5°	582.5	572.4	527.0	487.9	465.2
45°	540.9	529.5	484.1	443.8	426.2
47.5°	499.3	489.2	447.6	406.0	385.8
50°	455.2	446.3	408.5	366.9	345.5
52.5°	418.6	404.7	368.2	326.5	308.9
55°	375.7	364.4	330.3	291.2	276.1
57.5°	336.6	325.3	293.8	257.2	244.6
60°	300.1	283.7	257.2	225.7	215.6
62.5°	259.7	247.1	224.4	197.9	210.6
65°	223.2	210.6	190.4	194.2	161.4
67.5°	182.8	176.5	158.9	141.2	136.2
70°	148.8	141.2	134.9	116.0	111.0
72.5°	118.5	111.0	102.1	92.0	88.3
75°	89.5	83.2	78.2	74.4	82.0
77.5°	61.8	59.3	55.5	51.7	50.4
80°	40.3	39.1	37.8	36.6	35.3
82.5°	24.0	24.0	24.0	24.0	24.0
85°	12.6	13.9	15.1	16.4	17.7
87.5°	7.6	7.6	8.8	10.1	11.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)