

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: P560600

Luminaire Tested: FSR-12-2-LD4-2STD-35-UNV-82-88-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560600
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-35-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 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2005.0 lumens
Efficiency: N/A
Efficacy: 60.2 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

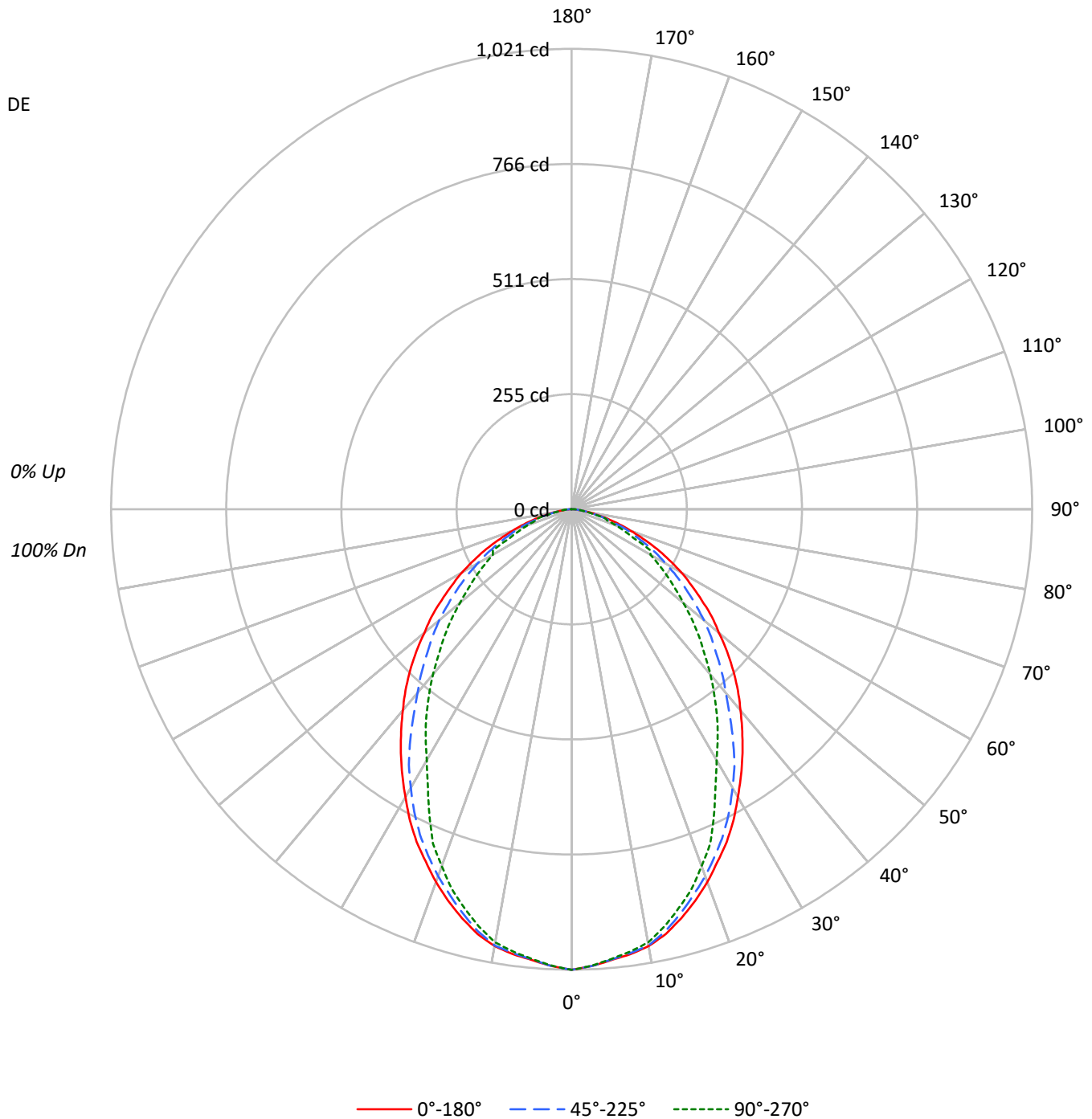
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	5497	5497	5497
5°	5422	5415	5409
10°	5375	5369	5330
15°	5230	5177	5105
20°	5038	4957	4822
25°	4831	4726	4431
30°	4579	4432	3992
35°	4336	4096	3692
40°	4090	3733	3360
45°	3855	3451	3038
50°	3569	3203	2709
55°	3302	2902	2426
60°	3025	2593	2173
65°	2662	2271	1924
70°	2192	1987	1635
75°	1743	1522	1595
80°	1172	1097	1026
85°	729	877	1019

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3855 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.1	4.7
10°-20°	260.9	13.0
20°-30°	361.2	18.0
30°-40°	385.2	19.2
40°-50°	351.4	17.5
50°-60°	275.3	13.7
60°-70°	179.4	8.9
70°-80°	79.5	4.0
80°-90°	17.1	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°	717.2	35.8
0°-40°	1102.4	55.0
0°-60°	1729.0	86.2
0°-90°	2005.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2005.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1021	1021	1021	1021	1021	
5°	1004	1002	1002	1001	1001	95
15°	939	939	929	920	916	264
25°	814	809	796	768	746	373
35°	660	655	623	576	562	413
45°	506	496	453	416	399	390
55°	352	341	309	273	259	316
65°	209	197	178	182	151	206
75°	84	78	73	70	77	90
85°	12	13	14	15	16	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1021.3	1021.3	1021.3	1021.3	1021.3
2.5°	1014.2	1014.2	1014.2	1013.1	1013.1
5°	1003.6	1002.4	1002.4	1001.2	1001.2
7.5°	995.3	994.2	993.0	991.8	989.4
10°	983.5	983.5	982.4	976.5	975.3
12.5°	964.6	963.5	958.7	950.5	948.1
15°	938.7	938.7	929.2	919.8	916.2
17.5°	910.3	909.2	897.3	887.9	883.2
20°	879.6	877.3	865.5	850.1	841.9
22.5°	845.4	845.4	831.2	811.2	802.9
25°	813.5	808.8	795.8	767.5	746.2
27.5°	776.9	769.8	755.7	715.5	690.7
30°	736.8	733.2	713.2	661.2	642.3
32.5°	699.0	693.1	671.8	617.5	602.2
35°	660.0	655.3	623.4	576.2	562.0
37.5°	621.1	615.2	575.0	537.2	519.5
40°	582.1	575.0	531.3	497.1	478.2
42.5°	545.5	536.0	493.5	456.9	435.7
45°	506.5	495.9	453.4	415.6	399.1
47.5°	467.6	458.1	419.2	380.2	361.3
50°	426.2	418.0	382.6	343.6	323.5
52.5°	392.0	379.0	344.8	305.8	289.3
55°	351.9	341.2	309.3	272.7	258.6
57.5°	315.3	304.6	275.1	240.9	229.1
60°	281.0	265.7	240.9	211.3	201.9
62.5°	243.2	231.4	210.2	185.4	197.2
65°	209.0	197.2	178.3	181.8	151.1
67.5°	171.2	165.3	148.8	132.2	127.5
70°	139.3	132.2	126.3	108.6	103.9
72.5°	111.0	103.9	95.6	86.2	82.7
75°	83.8	77.9	73.2	69.7	76.7
77.5°	57.9	55.5	52.0	48.4	47.2
80°	37.8	36.6	35.4	34.2	33.1
82.5°	22.4	22.4	22.4	22.4	22.4
85°	11.8	13.0	14.2	15.3	16.5
87.5°	7.1	7.1	8.3	9.4	10.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)