

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: P560724

Luminaire Tested: FSR-12-2-LD4-2STD-50-UNV-82-86-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560724
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-82-86-EDD-90
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2457.0 lumens
Efficiency: N/A
Efficacy: 73.8 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

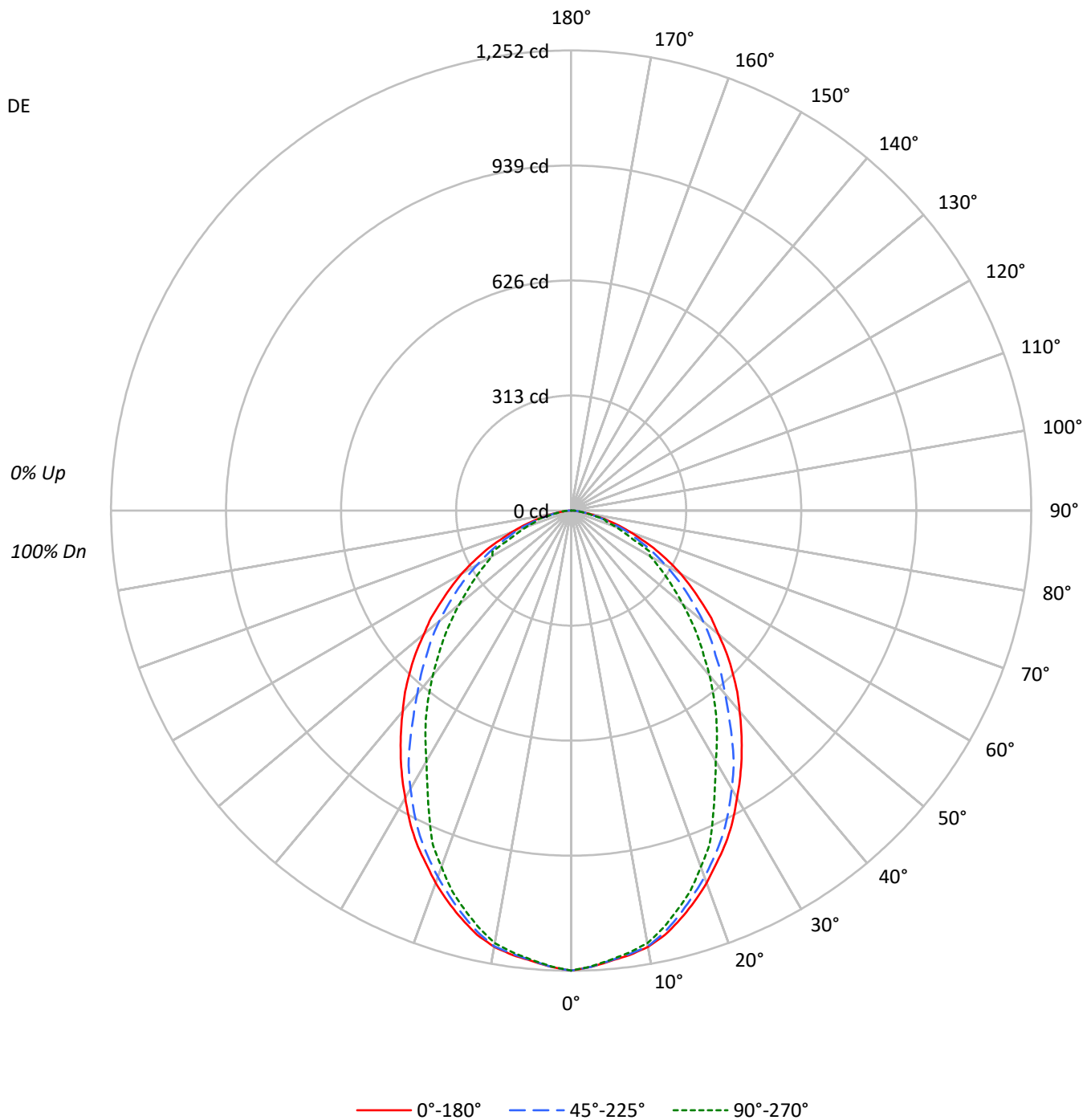
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	6736	6736	6736
5°	6645	6636	6629
10°	6587	6579	6531
15°	6409	6345	6256
20°	6174	6074	5908
25°	5920	5791	5430
30°	5611	5431	4891
35°	5314	5020	4525
40°	5011	4574	4117
45°	4724	4229	3723
50°	4373	3925	3319
55°	4046	3557	2974
60°	3707	3178	2663
65°	3261	2783	2358
70°	2686	2436	2003
75°	2136	1865	1955
80°	1435	1345	1255
85°	895	1074	1254

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4724 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.5	4.7
10°-20°	319.7	13.0
20°-30°	442.7	18.0
30°-40°	472.0	19.2
40°-50°	430.6	17.5
50°-60°	337.3	13.7
60°-70°	219.9	8.9
70°-80°	97.4	4.0
80°-90°	20.9	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°	878.9	35.8
0°-40°	1350.9	55.0
0°-60°	2118.8	86.2
0°-90°	2457.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2457.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1252	1252	1252	1252	1252	
5°	1230	1228	1228	1227	1227	117
15°	1150	1150	1139	1127	1123	323
25°	997	991	975	940	914	458
35°	809	803	764	706	689	506
45°	621	608	556	509	489	478
55°	431	418	379	334	317	387
65°	256	242	218	223	185	252
75°	103	96	90	85	94	110
85°	14	16	17	19	20	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1251.6	1251.6	1251.6	1251.6	1251.6
2.5°	1242.9	1242.9	1242.9	1241.4	1241.4
5°	1229.9	1228.4	1228.4	1227.0	1227.0
7.5°	1219.7	1218.3	1216.8	1215.4	1212.5
10°	1205.3	1205.3	1203.8	1196.6	1195.1
12.5°	1182.1	1180.7	1174.9	1164.7	1161.9
15°	1150.3	1150.3	1138.7	1127.1	1122.8
17.5°	1115.6	1114.1	1099.6	1088.1	1082.3
20°	1077.9	1075.0	1060.6	1041.8	1031.6
22.5°	1036.0	1036.0	1018.6	994.0	983.9
25°	996.9	991.1	975.2	940.5	914.4
27.5°	952.1	943.4	926.0	876.8	846.4
30°	902.9	898.5	873.9	810.3	787.1
32.5°	856.6	849.3	823.3	756.7	737.9
35°	808.8	803.0	764.0	706.1	688.7
37.5°	761.1	753.8	704.6	658.3	636.6
40°	713.3	704.6	651.1	609.1	586.0
42.5°	668.5	656.9	604.8	559.9	533.9
45°	620.7	607.7	555.6	509.3	489.1
47.5°	573.0	561.4	513.6	465.9	442.7
50°	522.3	512.2	468.8	421.0	396.4
52.5°	480.4	464.5	422.5	374.7	354.5
55°	431.2	418.2	379.1	334.2	316.9
57.5°	386.3	373.3	337.1	295.2	280.7
60°	344.4	325.6	295.2	259.0	247.4
62.5°	298.1	283.6	257.5	227.2	241.6
65°	256.1	241.6	218.5	222.8	185.2
67.5°	209.8	202.6	182.3	162.1	156.3
70°	170.7	162.1	154.8	133.1	127.3
72.5°	136.0	127.3	117.2	105.6	101.3
75°	102.7	95.5	89.7	85.4	94.0
77.5°	70.9	68.0	63.7	59.3	57.9
80°	46.3	44.9	43.4	42.0	40.5
82.5°	27.5	27.5	27.5	27.5	27.5
85°	14.5	15.9	17.4	18.8	20.3
87.5°	8.7	8.7	10.1	11.6	13.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)