

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: P560708

Luminaire Tested: FSR-12-2-LD4-2STD-50-UNV-81-86-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560708
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-81-86-EDD-90
Description: 1X2 FSR TROFFER WITH .156 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: 2510.0 lumens
Efficiency: N/A
Efficacy: 75.4 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

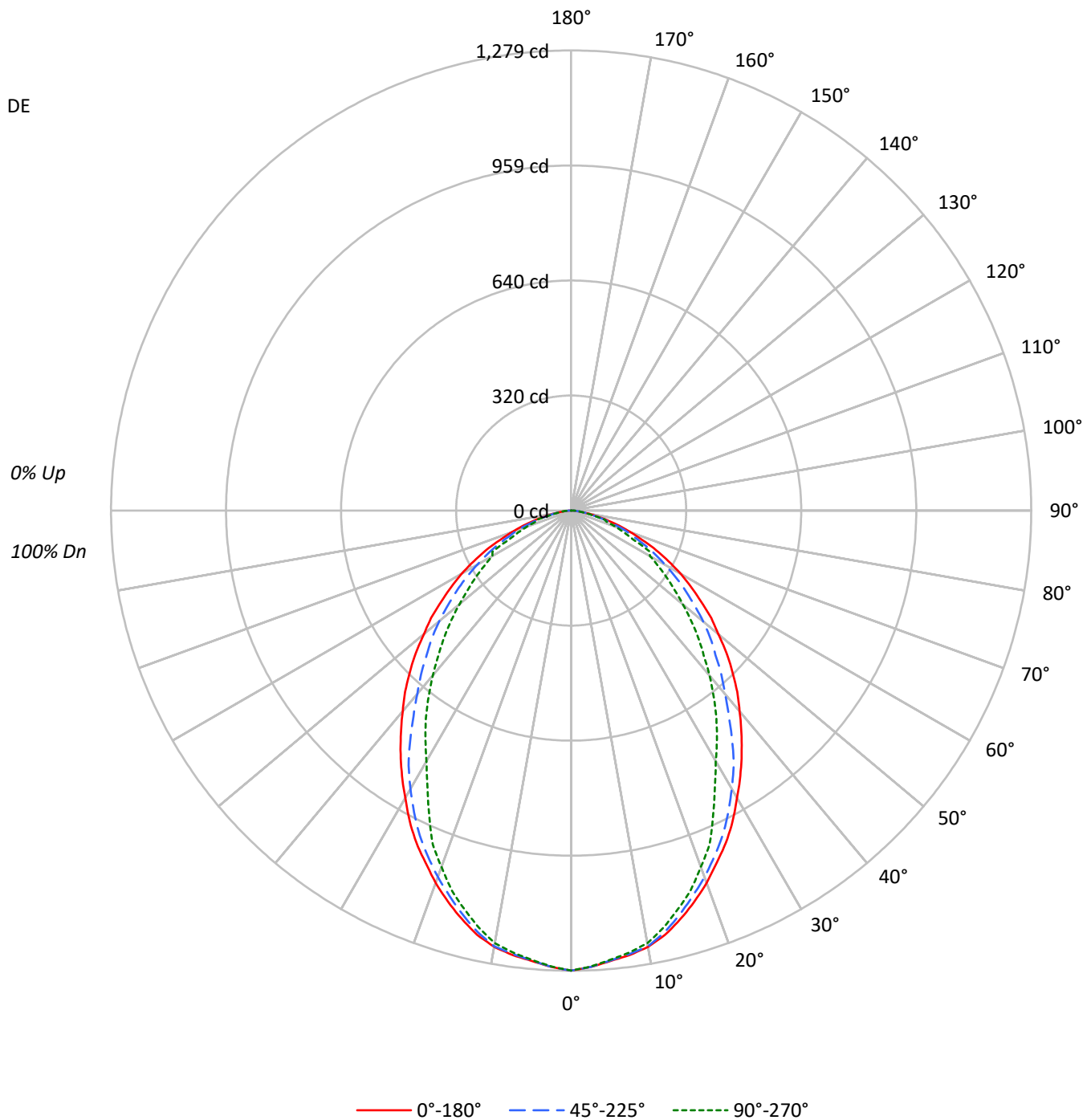
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	6881	6881	6881
5°	6788	6780	6772
10°	6729	6721	6672
15°	6547	6482	6391
20°	6307	6206	6036
25°	6048	5916	5548
30°	5732	5548	4997
35°	5429	5127	4623
40°	5120	4673	4206
45°	4826	4320	3803
50°	4468	4010	3391
55°	4133	3634	3037
60°	3787	3245	2721
65°	3331	2842	2409
70°	2744	2489	2047
75°	2181	1905	1998
80°	1466	1373	1283
85°	914	1093	1278

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4826 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.0	4.7
10°-20°	326.6	13.0
20°-30°	452.2	18.0
30°-40°	482.2	19.2
40°-50°	439.9	17.5
50°-60°	344.6	13.7
60°-70°	224.6	8.9
70°-80°	99.5	4.0
80°-90°	21.4	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°	897.8	35.8
0°-40°	1380.0	55.0
0°-60°	2164.5	86.2
0°-90°	2510.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2510.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1279	1279	1279	1279	1279	
5°	1256	1255	1255	1253	1253	119
15°	1175	1175	1163	1151	1147	330
25°	1018	1012	996	961	934	468
35°	826	820	780	721	704	517
45°	634	621	568	520	500	488
55°	440	427	387	341	324	395
65°	262	247	223	228	189	258
75°	105	98	92	87	96	112
85°	15	16	18	19	21	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1278.6	1278.6	1278.6	1278.6	1278.6
2.5°	1269.7	1269.7	1269.7	1268.2	1268.2
5°	1256.4	1254.9	1254.9	1253.4	1253.4
7.5°	1246.0	1244.6	1243.1	1241.6	1238.7
10°	1231.3	1231.3	1229.8	1222.4	1220.9
12.5°	1207.6	1206.1	1200.2	1189.9	1186.9
15°	1175.1	1175.1	1163.3	1151.4	1147.0
17.5°	1139.6	1138.1	1123.4	1111.5	1105.6
20°	1101.2	1098.2	1083.5	1064.2	1053.9
22.5°	1058.3	1058.3	1040.6	1015.5	1005.1
25°	1018.4	1012.5	996.2	960.8	934.2
27.5°	972.6	963.7	946.0	895.7	864.7
30°	922.3	917.9	892.8	827.7	804.1
32.5°	875.0	867.6	841.0	773.0	753.8
35°	826.3	820.3	780.4	721.3	703.6
37.5°	777.5	770.1	719.8	672.5	650.4
40°	728.7	719.8	665.1	622.3	598.6
42.5°	682.9	671.1	617.8	572.0	545.4
45°	634.1	620.8	567.6	520.3	499.6
47.5°	585.3	573.5	524.7	475.9	452.3
50°	533.6	523.2	478.9	430.1	405.0
52.5°	490.7	474.5	431.6	382.8	362.1
55°	440.5	427.2	387.3	341.4	323.7
57.5°	394.7	381.4	344.4	301.5	286.8
60°	351.8	332.6	301.5	264.6	252.8
62.5°	304.5	289.7	263.1	232.1	246.8
65°	261.6	246.8	223.2	227.6	189.2
67.5°	214.3	206.9	186.2	165.5	159.6
70°	174.4	165.5	158.2	136.0	130.1
72.5°	138.9	130.1	119.7	107.9	103.5
75°	104.9	97.6	91.6	87.2	96.1
77.5°	72.4	69.5	65.0	60.6	59.1
80°	47.3	45.8	44.3	42.9	41.4
82.5°	28.1	28.1	28.1	28.1	28.1
85°	14.8	16.3	17.7	19.2	20.7
87.5°	8.9	8.9	10.3	11.8	13.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)