

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: P560645

Luminaire Tested: FSR-12-2-LD4-2STD-40-UNV-81-86-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560645
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-40-UNV-81-86-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2837.0 lumens
Efficiency: N/A
Efficacy: 85.2 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

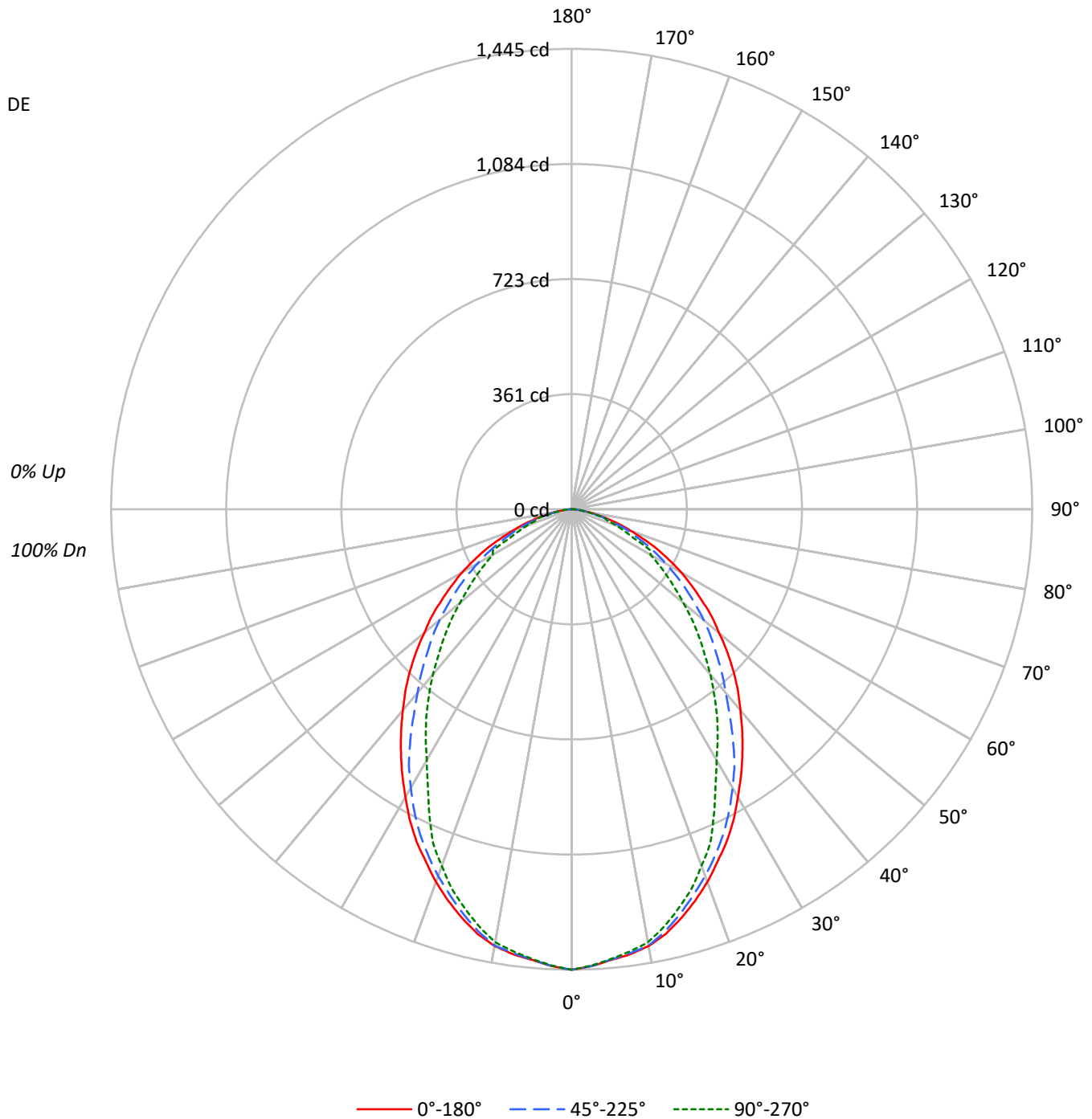
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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																												
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°	7777	7777	7777
5°	7672	7663	7654
10°	7606	7596	7542
15°	7400	7326	7223
20°	7128	7014	6822
25°	6836	6687	6270
30°	6479	6271	5648
35°	6136	5796	5225
40°	5786	5282	4754
45°	5455	4883	4298
50°	5050	4532	3833
55°	4672	4107	3433
60°	4280	3668	3075
65°	3766	3213	2723
70°	3102	2814	2313
75°	2466	2154	2258
80°	1658	1553	1450
85°	1031	1235	1445

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5455 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.5	4.7
10°-20°	369.2	13.0
20°-30°	511.1	18.0
30°-40°	545.0	19.2
40°-50°	497.2	17.5
50°-60°	389.5	13.7
60°-70°	253.9	8.9
70°-80°	112.5	4.0
80°-90°	24.1	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°	1014.8	35.8
0°-40°	1559.8	55.0
0°-60°	2446.5	86.2
0°-90°	2837.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2837.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1445	1445	1445	1445	1445	
5°	1420	1418	1418	1417	1417	135
15°	1328	1328	1315	1302	1296	373
25°	1151	1144	1126	1086	1056	528
35°	934	927	882	815	795	584
45°	717	702	642	588	565	552
55°	498	483	438	386	366	447
65°	296	279	252	257	214	291
75°	119	110	104	99	109	127
85°	17	18	20	22	23	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1445.1	1445.1	1445.1	1445.1	1445.1
2.5°	1435.1	1435.1	1435.1	1433.4	1433.4
5°	1420.1	1418.4	1418.4	1416.7	1416.7
7.5°	1408.4	1406.7	1405.0	1403.4	1400.0
10°	1391.7	1391.7	1390.0	1381.6	1380.0
12.5°	1364.9	1363.3	1356.6	1344.9	1341.5
15°	1328.2	1328.2	1314.8	1301.5	1296.4
17.5°	1288.1	1286.4	1269.7	1256.3	1249.7
20°	1244.6	1241.3	1224.6	1202.9	1191.2
22.5°	1196.2	1196.2	1176.2	1147.8	1136.1
25°	1151.1	1144.4	1126.0	1085.9	1055.9
27.5°	1099.3	1089.3	1069.2	1012.4	977.3
30°	1042.5	1037.5	1009.1	935.6	908.8
32.5°	989.0	980.7	950.6	873.8	852.0
35°	933.9	927.2	882.1	815.3	795.2
37.5°	878.8	870.4	813.6	760.2	735.1
40°	823.6	813.6	751.8	703.4	676.6
42.5°	771.8	758.5	698.3	646.5	616.5
45°	716.7	701.7	641.5	588.1	564.7
47.5°	661.6	648.2	593.1	538.0	511.2
50°	603.1	591.4	541.3	486.2	457.8
52.5°	554.7	536.3	487.8	432.7	409.3
55°	497.9	482.8	437.7	385.9	365.9
57.5°	446.1	431.0	389.3	340.8	324.1
60°	397.6	375.9	340.8	299.1	285.7
62.5°	344.2	327.5	297.4	262.3	279.0
65°	295.7	279.0	252.3	257.3	213.8
67.5°	242.2	233.9	210.5	187.1	180.4
70°	197.1	187.1	178.8	153.7	147.0
72.5°	157.0	147.0	135.3	122.0	116.9
75°	118.6	110.3	103.6	98.6	108.6
77.5°	81.9	78.5	73.5	68.5	66.8
80°	53.5	51.8	50.1	48.4	46.8
82.5°	31.7	31.7	31.7	31.7	31.7
85°	16.7	18.4	20.0	21.7	23.4
87.5°	10.0	10.0	11.7	13.4	15.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)