

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: P562267

Luminaire Tested: FSR-24-4-LD4-1LO-50-UNV-82-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562267
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-24-4-LD4-1LO-50-UNV-82-94-EDD
Description: 2X4 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2790.0 lumens
Efficiency: N/A
Efficacy: 119.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

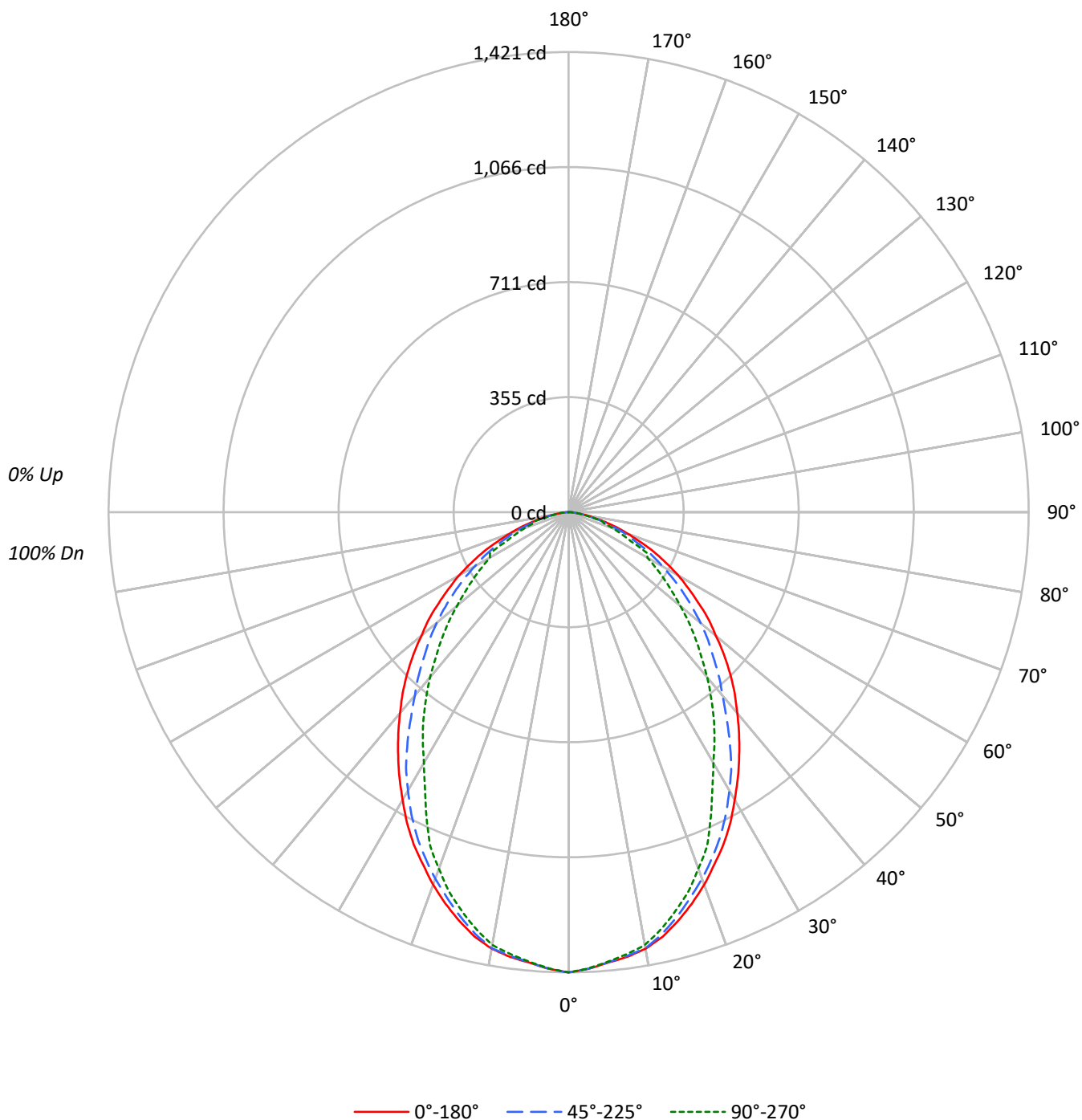
Input Watts (W): 23.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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°	1912	1912	1912
5°	1886	1884	1882
10°	1870	1868	1854
15°	1819	1801	1776
20°	1753	1724	1677
25°	1681	1644	1542
30°	1593	1542	1389
35°	1509	1425	1285
40°	1423	1299	1169
45°	1341	1200	1057
50°	1241	1114	942
55°	1148	1010	844
60°	1052	902	756
65°	926	790	670
70°	763	692	569
75°	607	530	555
80°	408	382	356
85°	253	304	355

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1341 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.3	4.7
10°-20°	363.1	13.0
20°-30°	502.6	18.0
30°-40°	536.0	19.2
40°-50°	489.0	17.5
50°-60°	383.1	13.7
60°-70°	249.7	8.9
70°-80°	110.6	4.0
80°-90°	23.7	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°	998.0	35.8
0°-40°	1534.0	55.0
0°-60°	2406.0	86.2
0°-90°	2790.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2790.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1421	1421	1421	1421	1421	
5°	1396	1395	1395	1393	1393	133
15°	1306	1306	1293	1280	1275	367
25°	1132	1126	1107	1068	1038	520
35°	918	912	868	802	782	574
45°	705	690	631	578	555	543
55°	490	475	430	380	360	439
65°	291	274	248	253	210	287
75°	117	108	102	97	107	125
85°	16	18	20	21	23	23
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1421.2	1421.2	1421.2	1421.2	1421.2
2.5°	1411.3	1411.3	1411.3	1409.7	1409.7
5°	1396.5	1394.9	1394.9	1393.3	1393.3
7.5°	1385.0	1383.4	1381.8	1380.1	1376.8
10°	1368.6	1368.6	1367.0	1358.8	1357.1
12.5°	1342.3	1340.7	1334.1	1322.6	1319.3
15°	1306.2	1306.2	1293.0	1279.9	1275.0
17.5°	1266.7	1265.1	1248.7	1235.5	1229.0
20°	1224.0	1220.7	1204.3	1183.0	1171.5
22.5°	1176.4	1176.4	1156.7	1128.7	1117.2
25°	1132.0	1125.5	1107.4	1067.9	1038.4
27.5°	1081.1	1071.2	1051.5	995.7	961.2
30°	1025.2	1020.3	992.4	920.1	893.8
32.5°	972.7	964.4	934.9	859.3	837.9
35°	918.4	911.9	867.5	801.8	782.1
37.5°	864.2	856.0	800.1	747.6	722.9
40°	810.0	800.1	739.3	691.7	665.4
42.5°	759.1	745.9	686.8	635.8	606.3
45°	704.8	690.1	630.9	578.3	555.3
47.5°	650.6	637.5	583.3	529.0	502.8
50°	593.1	581.6	532.3	478.1	450.2
52.5°	545.5	527.4	479.8	425.5	402.5
55°	489.6	474.8	430.5	379.5	359.8
57.5°	438.7	423.9	382.8	335.2	318.7
60°	391.0	369.7	335.2	294.1	281.0
62.5°	338.5	322.0	292.5	257.9	274.4
65°	290.8	274.4	248.1	253.0	210.3
67.5°	238.2	230.0	207.0	184.0	177.4
70°	193.9	184.0	175.8	151.2	144.6
72.5°	154.4	144.6	133.1	119.9	115.0
75°	116.7	108.4	101.9	96.9	106.8
77.5°	80.5	77.2	72.3	67.4	65.7
80°	52.6	50.9	49.3	47.6	46.0
82.5°	31.2	31.2	31.2	31.2	31.2
85°	16.4	18.1	19.7	21.4	23.0
87.5°	9.9	9.9	11.5	13.1	14.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)