

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: P562275

Luminaire Tested: FSR-24-4-LD4-1LO-50-UNV-93-85-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562275
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-93-85-EDD
Description: 2X4 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2940.0 lumens
Efficiency: N/A
Efficacy: 125.6 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

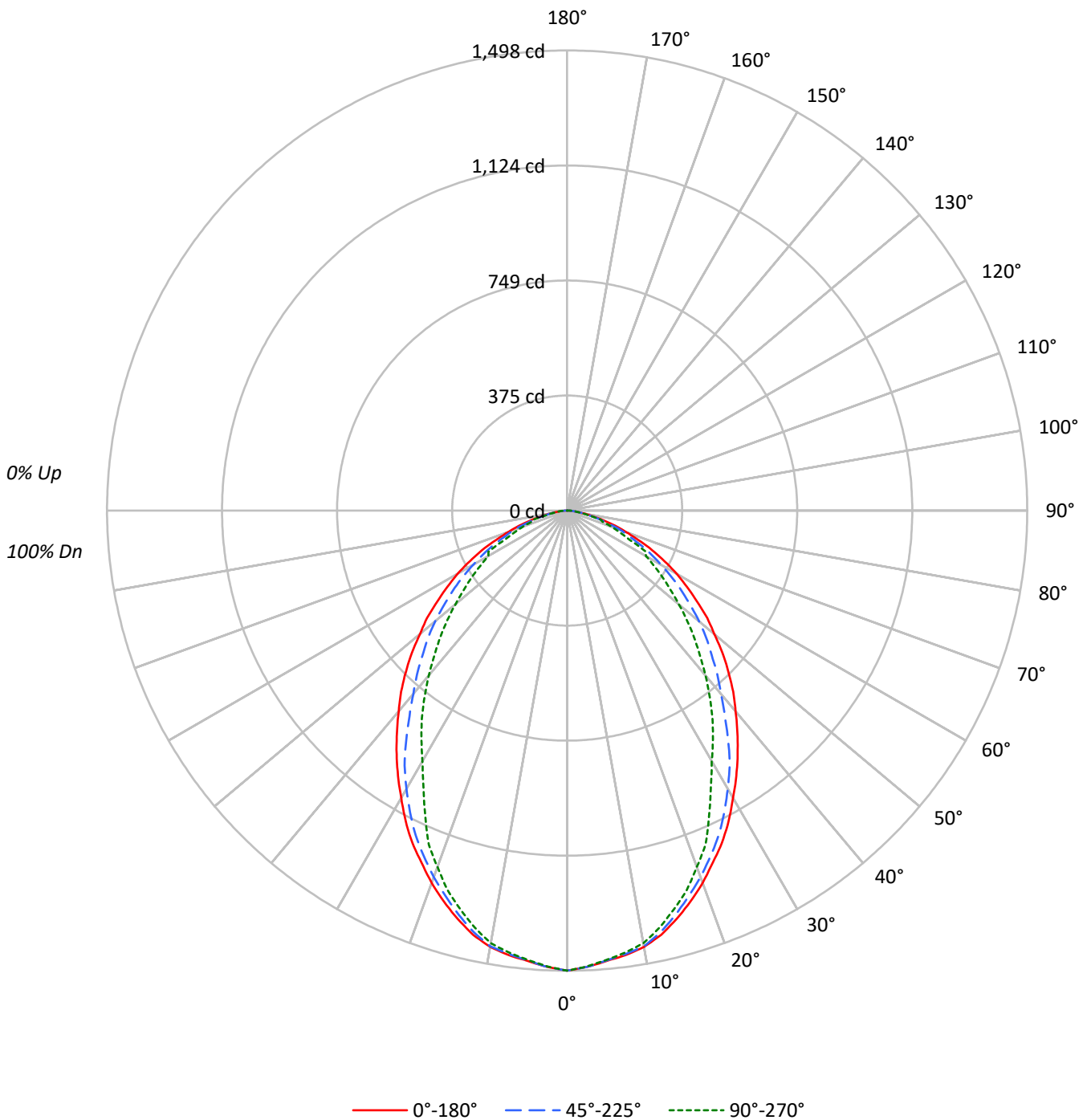
Input Watts (W): 23.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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				10	0
RW	70	50	30	10	70	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°	2015	2015	2015
5°	1988	1985	1983
10°	1970	1968	1954
15°	1917	1898	1871
20°	1847	1817	1767
25°	1771	1732	1624
30°	1678	1625	1463
35°	1590	1501	1354
40°	1499	1368	1232
45°	1413	1265	1114
50°	1308	1174	993
55°	1210	1064	890
60°	1109	950	797
65°	975	832	706
70°	804	729	600
75°	639	558	585
80°	429	402	376
85°	267	321	374

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1413 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.4	4.7
10°-20°	382.6	13.0
20°-30°	529.7	18.0
30°-40°	564.8	19.2
40°-50°	515.2	17.5
50°-60°	403.7	13.7
60°-70°	263.1	8.9
70°-80°	116.6	4.0
80°-90°	25.0	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°	1051.7	35.8
0°-40°	1616.4	55.0
0°-60°	2535.3	86.2
0°-90°	2940.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2940.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1498	1498	1498	1498	1498	
5°	1472	1470	1470	1468	1468	140
15°	1376	1376	1363	1349	1344	387
25°	1193	1186	1167	1125	1094	548
35°	968	961	914	845	824	605
45°	743	727	665	609	585	572
55°	516	500	454	400	379	463
65°	306	289	261	267	222	302
75°	123	114	107	102	112	132
85°	17	19	21	22	24	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1497.6	1497.6	1497.6	1497.6	1497.6
2.5°	1487.2	1487.2	1487.2	1485.5	1485.5
5°	1471.6	1469.9	1469.9	1468.2	1468.2
7.5°	1459.5	1457.8	1456.0	1454.3	1450.9
10°	1442.2	1442.2	1440.5	1431.8	1430.1
12.5°	1414.5	1412.8	1405.8	1393.7	1390.3
15°	1376.4	1376.4	1362.6	1348.7	1343.5
17.5°	1334.9	1333.1	1315.8	1302.0	1295.0
20°	1289.8	1286.4	1269.1	1246.6	1234.4
22.5°	1239.6	1239.6	1218.9	1189.4	1177.3
25°	1192.9	1186.0	1166.9	1125.4	1094.2
27.5°	1139.2	1128.8	1108.0	1049.2	1012.8
30°	1080.3	1075.2	1045.7	969.5	941.8
32.5°	1024.9	1016.3	985.1	905.5	883.0
35°	967.8	960.9	914.1	844.9	824.1
37.5°	910.7	902.0	843.2	787.8	761.8
40°	853.5	843.2	779.1	728.9	701.2
42.5°	799.9	786.0	723.7	670.0	638.9
45°	742.7	727.2	664.8	609.4	585.2
47.5°	685.6	671.8	614.6	557.5	529.8
50°	625.0	612.9	560.9	503.8	474.4
52.5°	574.8	555.8	505.5	448.4	424.2
55°	515.9	500.4	453.6	399.9	379.2
57.5°	462.3	446.7	403.4	353.2	335.9
60°	412.1	389.5	353.2	309.9	296.1
62.5°	356.7	339.3	308.2	271.8	289.1
65°	306.4	289.1	261.4	266.6	221.6
67.5°	251.0	242.4	218.1	193.9	187.0
70°	204.3	193.9	185.3	159.3	152.4
72.5°	162.7	152.4	140.2	126.4	121.2
75°	122.9	114.3	107.3	102.1	112.5
77.5°	84.8	81.4	76.2	71.0	69.3
80°	55.4	53.7	51.9	50.2	48.5
82.5°	32.9	32.9	32.9	32.9	32.9
85°	17.3	19.0	20.8	22.5	24.2
87.5°	10.4	10.4	12.1	13.9	15.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)