

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: P561922

Luminaire Tested: FSR-24-2-LD4-1LO-35-UNV-81-85-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P561922
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-24-2-LD4-1LO-35-UNV-81-85-EDD-90
Description: 2X4 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2270.0 lumens
Efficiency: N/A
Efficacy: 97.0 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

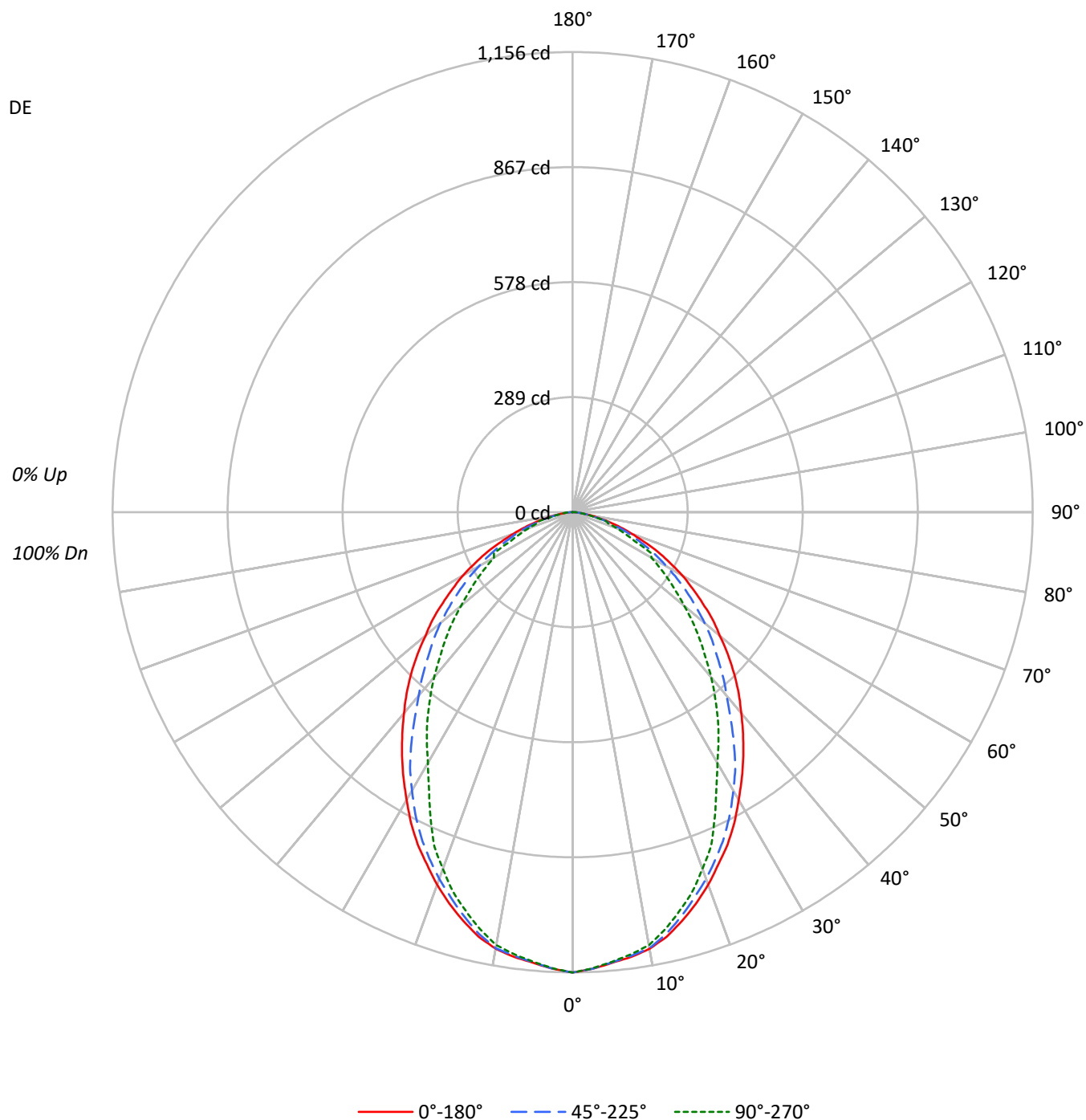
Input Watts (W): 23.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	110	106	102	99	108	104	100	97	100	97	94		96	94	91		92
2	101	94	88	83	99	92	87	82	89	84	80		86	82	78		83
3	93	84	77	71	91	82	76	70	79	74	69		77	72	68		74
4	86	75	67	61	84	74	66	61	72	65	60		69	64	59		67
5	80	68	60	54	78	67	59	53	65	58	53		63	57	52		61
6	74	62	53	48	72	61	53	47	59	52	47		57	51	47		56
7	69	56	48	43	67	56	48	42	54	47	42		53	46	42		51
8	65	52	44	38	63	51	44	38	50	43	38		49	42	38		48
9	61	48	40	35	59	47	40	35	46	39	35		45	39	34		44
10	57	44	37	32	56	44	37	32	43	36	32		42	36	32		41

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1556	1556	1556
5°	1535	1533	1531
10°	1521	1520	1509
15°	1480	1465	1445
20°	1426	1403	1365
25°	1367	1338	1254
30°	1296	1254	1130
35°	1227	1159	1045
40°	1157	1056	951
45°	1091	977	860
50°	1010	907	767
55°	935	821	687
60°	856	734	615
65°	753	643	545
70°	620	563	463
75°	493	431	452
80°	332	311	290
85°	207	247	289

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1091 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.6	4.7
10°-20°	295.4	13.0
20°-30°	409.0	18.0
30°-40°	436.1	19.2
40°-50°	397.8	17.5
50°-60°	311.7	13.7
60°-70°	203.1	8.9
70°-80°	90.0	4.0
80°-90°	19.3	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°	812.0	35.8
0°-40°	1248.1	55.0
0°-60°	1957.5	86.2
0°-90°	2270.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2270.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1156	1156	1156	1156	1156	
5°	1136	1135	1135	1134	1134	108
15°	1063	1063	1052	1041	1037	299
25°	921	916	901	869	845	423
35°	747	742	706	652	636	467
45°	574	561	513	470	452	442
55°	398	386	350	309	293	357
65°	237	223	202	206	171	233
75°	95	88	83	79	87	102
85°	13	15	16	17	19	19
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1156.3	1156.3	1156.3	1156.3	1156.3
2.5°	1148.3	1148.3	1148.3	1147.0	1147.0
5°	1136.3	1134.9	1134.9	1133.6	1133.6
7.5°	1126.9	1125.6	1124.2	1122.9	1120.2
10°	1113.5	1113.5	1112.2	1105.5	1104.2
12.5°	1092.1	1090.8	1085.5	1076.1	1073.4
15°	1062.7	1062.7	1052.0	1041.3	1037.3
17.5°	1030.7	1029.3	1015.9	1005.3	999.9
20°	995.9	993.2	979.9	962.5	953.1
22.5°	957.1	957.1	941.1	918.4	909.0
25°	921.0	915.7	901.0	868.9	844.8
27.5°	879.6	871.6	855.5	810.1	782.0
30°	834.1	830.1	807.4	748.6	727.2
32.5°	791.4	784.7	760.6	699.1	681.8
35°	747.3	741.9	705.8	652.3	636.3
37.5°	703.1	696.5	651.0	608.2	588.2
40°	659.0	651.0	601.5	562.8	541.4
42.5°	617.6	606.9	558.8	517.3	493.3
45°	573.5	561.4	513.3	470.5	451.8
47.5°	529.4	518.7	474.6	430.4	409.1
50°	482.6	473.2	433.1	389.0	366.3
52.5°	443.8	429.1	390.3	346.2	327.5
55°	398.4	386.3	350.2	308.8	292.8
57.5°	356.9	344.9	311.5	272.7	259.3
60°	318.2	300.8	272.7	239.3	228.6
62.5°	275.4	262.0	237.9	209.9	223.2
65°	236.6	223.2	201.9	205.9	171.1
67.5°	193.8	187.1	168.4	149.7	144.4
70°	157.7	149.7	143.0	123.0	117.6
72.5°	125.7	117.6	108.3	97.6	93.6
75°	94.9	88.2	82.9	78.9	86.9
77.5°	65.5	62.8	58.8	54.8	53.5
80°	42.8	41.4	40.1	38.8	37.4
82.5°	25.4	25.4	25.4	25.4	25.4
85°	13.4	14.7	16.0	17.4	18.7
87.5°	8.0	8.0	9.4	10.7	12.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)