

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: P558536

Luminaire Tested: FSR-12-1-LD4-1HI-40-UNV-81-88-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558536
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-12-1-LD4-1HI-40-UNV-81-88-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

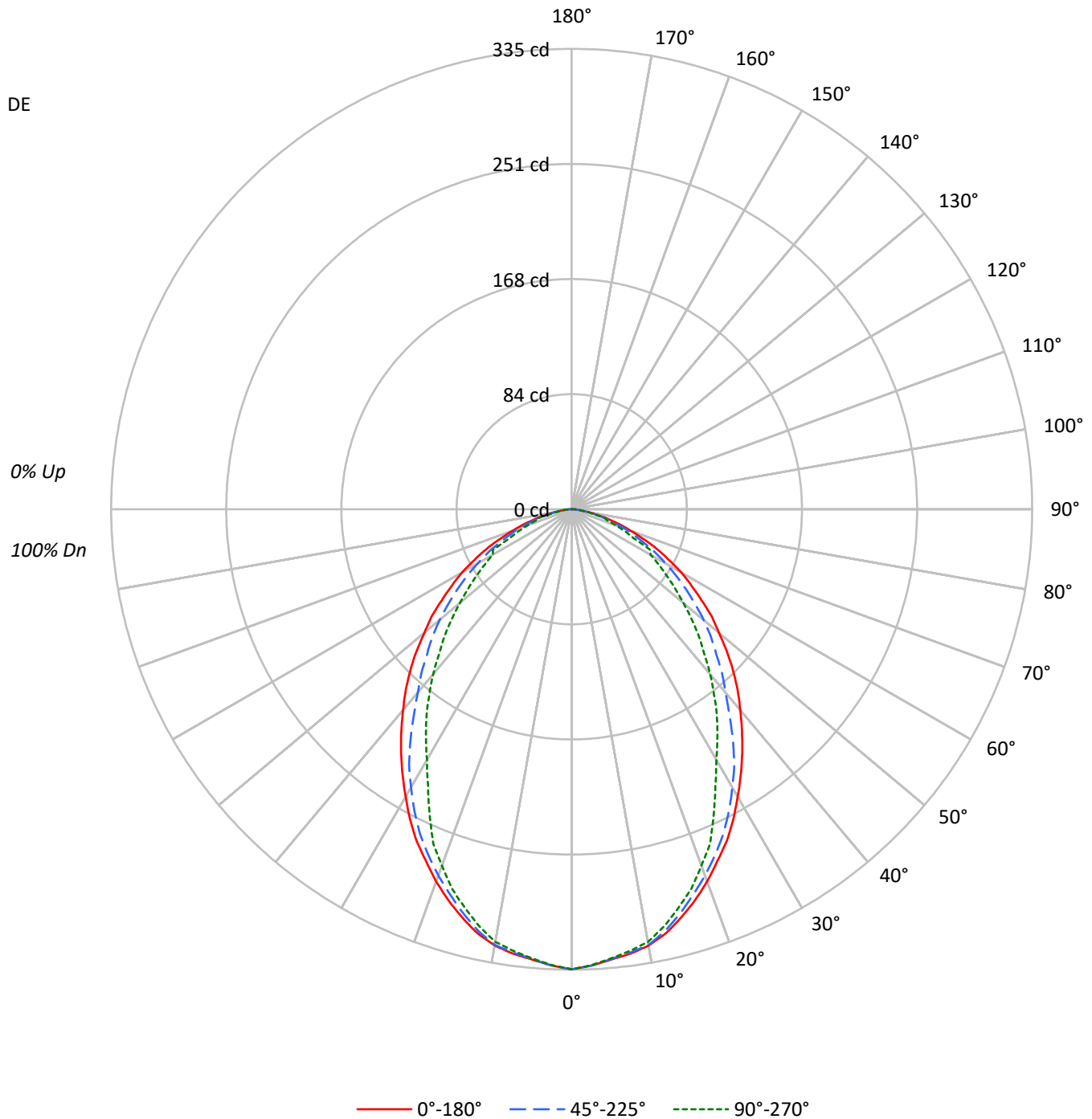
Lumens per Lamp: N/A
Luminaire Lumens: 657.0 lumens
Efficiency: N/A
Efficacy: 60.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 10.8
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	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°	3603	3603	3603
5°	3554	3549	3545
10°	3523	3518	3493
15°	3428	3393	3345
20°	3301	3249	3160
25°	3166	3097	2904
30°	3000	2905	2616
35°	2842	2685	2420
40°	2680	2446	2202
45°	2527	2262	1991
50°	2339	2100	1775
55°	2164	1903	1590
60°	1983	1699	1425
65°	1745	1487	1261
70°	1438	1303	1070
75°	1144	998	1044
80°	769	719	669
85°	482	568	667

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2527 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.2	4.7
10°-20°	85.5	13.0
20°-30°	118.4	18.0
30°-40°	126.2	19.2
40°-50°	115.1	17.5
50°-60°	90.2	13.7
60°-70°	58.8	8.9
70°-80°	26.0	4.0
80°-90°	5.6	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°	235.0	35.8
0°-40°	361.2	55.0
0°-60°	566.6	86.2
0°-90°	657.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	657.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	335	335	335	335	335	
5°	329	328	328	328	328	31
15°	308	308	304	301	300	86
25°	267	265	261	252	244	122
35°	216	215	204	189	184	135
45°	166	162	149	136	131	128
55°	115	112	101	89	85	103
65°	68	65	58	60	50	68
75°	28	26	24	23	25	29
85°	4	4	5	5	5	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	334.7	334.7	334.7	334.7	334.7
2.5°	332.3	332.3	332.3	332.0	332.0
5°	328.9	328.5	328.5	328.1	328.1
7.5°	326.2	325.8	325.4	325.0	324.2
10°	322.3	322.3	321.9	320.0	319.6
12.5°	316.1	315.7	314.2	311.5	310.7
15°	307.6	307.6	304.5	301.4	300.2
17.5°	298.3	297.9	294.0	290.9	289.4
20°	288.2	287.5	283.6	278.6	275.9
22.5°	277.0	277.0	272.4	265.8	263.1
25°	266.6	265.0	260.8	251.5	244.5
27.5°	254.6	252.3	247.6	234.5	226.3
30°	241.4	240.3	233.7	216.7	210.5
32.5°	229.0	227.1	220.1	202.3	197.3
35°	216.3	214.7	204.3	188.8	184.2
37.5°	203.5	201.6	188.4	176.0	170.2
40°	190.7	188.4	174.1	162.9	156.7
42.5°	178.7	175.7	161.7	149.7	142.8
45°	166.0	162.5	148.6	136.2	130.8
47.5°	153.2	150.1	137.3	124.6	118.4
50°	139.7	137.0	125.4	112.6	106.0
52.5°	128.5	124.2	113.0	100.2	94.8
55°	115.3	111.8	101.4	89.4	84.7
57.5°	103.3	99.8	90.1	78.9	75.1
60°	92.1	87.1	78.9	69.3	66.2
62.5°	79.7	75.8	68.9	60.7	64.6
65°	68.5	64.6	58.4	59.6	49.5
67.5°	56.1	54.2	48.7	43.3	41.8
70°	45.7	43.3	41.4	35.6	34.0
72.5°	36.4	34.0	31.3	28.2	27.1
75°	27.5	25.5	24.0	22.8	25.1
77.5°	19.0	18.2	17.0	15.9	15.5
80°	12.4	12.0	11.6	11.2	10.8
82.5°	7.4	7.4	7.4	7.4	7.4
85°	3.9	4.3	4.6	5.0	5.4
87.5°	2.3	2.3	2.7	3.1	3.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)