

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: P558930

Luminaire Tested: FSR-12-1-LD4-1STD-40-UNV-82-85-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558930
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-LD4-1STD-40-UNV-82-85-EDD-90
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 609.0 lumens
Efficiency: N/A
Efficacy: 73.4 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

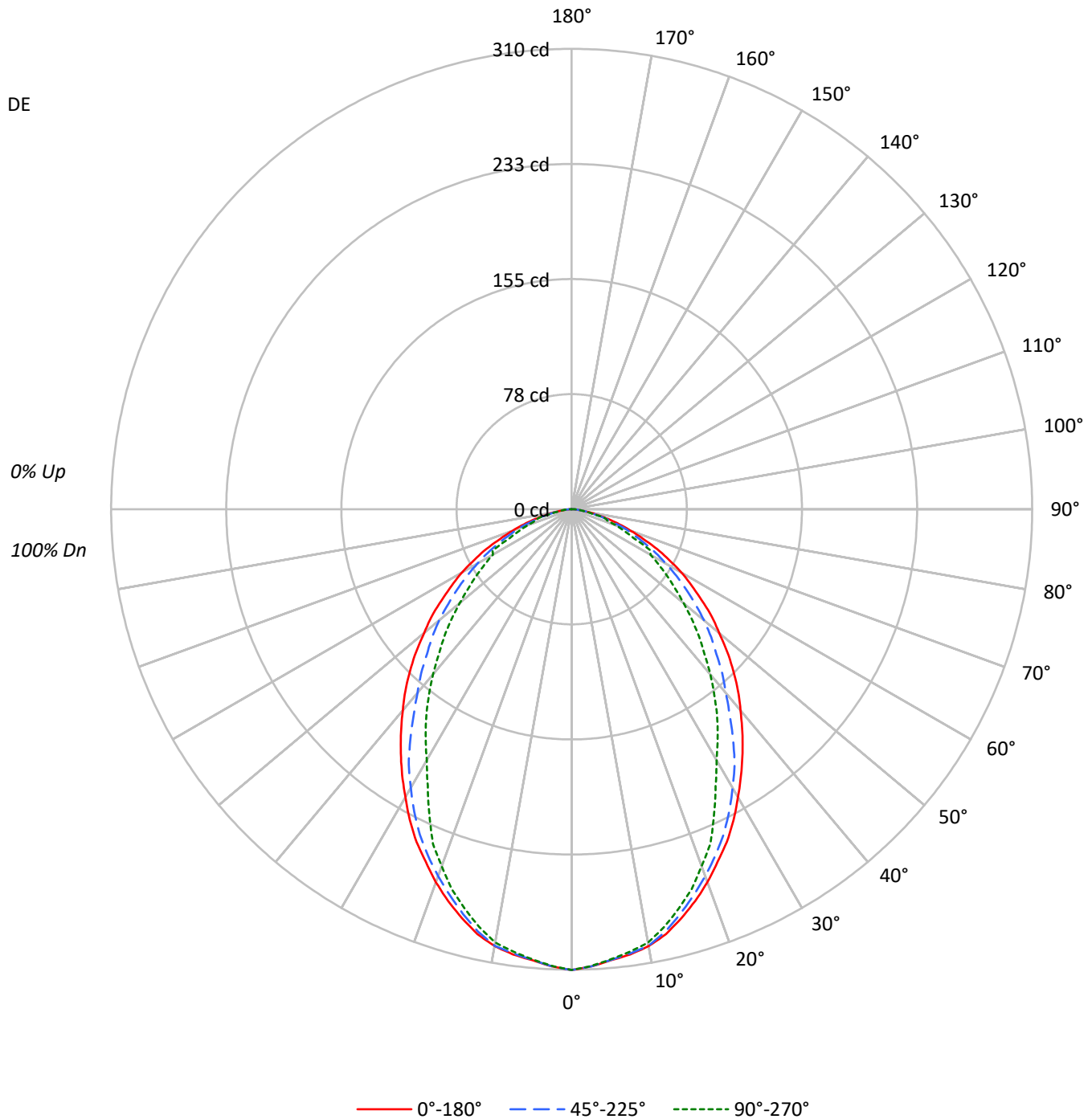
Input Watts (W): 8.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	0		
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	47	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°	3339	3339	3339
5°	3293	3290	3286
10°	3265	3262	3237
15°	3177	3145	3101
20°	3061	3011	2929
25°	2935	2871	2692
30°	2782	2692	2425
35°	2635	2489	2243
40°	2484	2268	2040
45°	2343	2096	1845
50°	2169	1946	1646
55°	2006	1764	1473
60°	1838	1576	1320
65°	1617	1380	1169
70°	1331	1209	995
75°	1061	923	969
80°	713	669	620
85°	445	531	618

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2343 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.9	4.7
10°-20°	79.2	13.0
20°-30°	109.7	18.0
30°-40°	117.0	19.2
40°-50°	106.7	17.5
50°-60°	83.6	13.7
60°-70°	54.5	8.9
70°-80°	24.2	4.0
80°-90°	5.2	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°	217.8	35.8
0°-40°	334.8	55.0
0°-60°	525.2	86.2
0°-90°	609.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	609.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	310	310	310	310	310	
5°	305	304	304	304	304	29
15°	285	285	282	279	278	80
25°	247	246	242	233	227	113
35°	200	199	189	175	171	125
45°	154	151	138	126	121	119
55°	107	104	94	83	78	96
65°	64	60	54	55	46	63
75°	26	24	22	21	23	27
85°	4	4	4	5	5	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	310.2	310.2	310.2	310.2	310.2
2.5°	308.1	308.1	308.1	307.7	307.7
5°	304.8	304.5	304.5	304.1	304.1
7.5°	302.3	302.0	301.6	301.3	300.5
10°	298.7	298.7	298.4	296.6	296.2
12.5°	293.0	292.6	291.2	288.7	288.0
15°	285.1	285.1	282.2	279.4	278.3
17.5°	276.5	276.1	272.6	269.7	268.3
20°	267.2	266.5	262.9	258.2	255.7
22.5°	256.8	256.8	252.5	246.4	243.9
25°	247.1	245.7	241.7	233.1	226.7
27.5°	236.0	233.8	229.5	217.3	209.8
30°	223.8	222.7	216.6	200.8	195.1
32.5°	212.3	210.5	204.1	187.6	182.9
35°	200.5	199.0	189.4	175.0	170.7
37.5°	188.6	186.8	174.7	163.2	157.8
40°	176.8	174.7	161.4	151.0	145.2
42.5°	165.7	162.8	149.9	138.8	132.3
45°	153.9	150.6	137.7	126.2	121.2
47.5°	142.0	139.1	127.3	115.5	109.7
50°	129.5	127.0	116.2	104.4	98.3
52.5°	119.1	115.1	104.7	92.9	87.9
55°	106.9	103.6	94.0	82.8	78.5
57.5°	95.8	92.5	83.6	73.2	69.6
60°	85.4	80.7	73.2	64.2	61.3
62.5°	73.9	70.3	63.8	56.3	59.9
65°	63.5	59.9	54.2	55.2	45.9
67.5°	52.0	50.2	45.2	40.2	38.7
70°	42.3	40.2	38.4	33.0	31.6
72.5°	33.7	31.6	29.0	26.2	25.1
75°	25.5	23.7	22.2	21.2	23.3
77.5°	17.6	16.9	15.8	14.7	14.3
80°	11.5	11.1	10.8	10.4	10.0
82.5°	6.8	6.8	6.8	6.8	6.8
85°	3.6	3.9	4.3	4.7	5.0
87.5°	2.2	2.2	2.5	2.9	3.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)