

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: P560469

Luminaire Tested: FSR-12-2-LD4-2LO-40-UNV-82-86-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560469
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-12-2-LD4-2LO-40-UNV-82-86-EDD
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

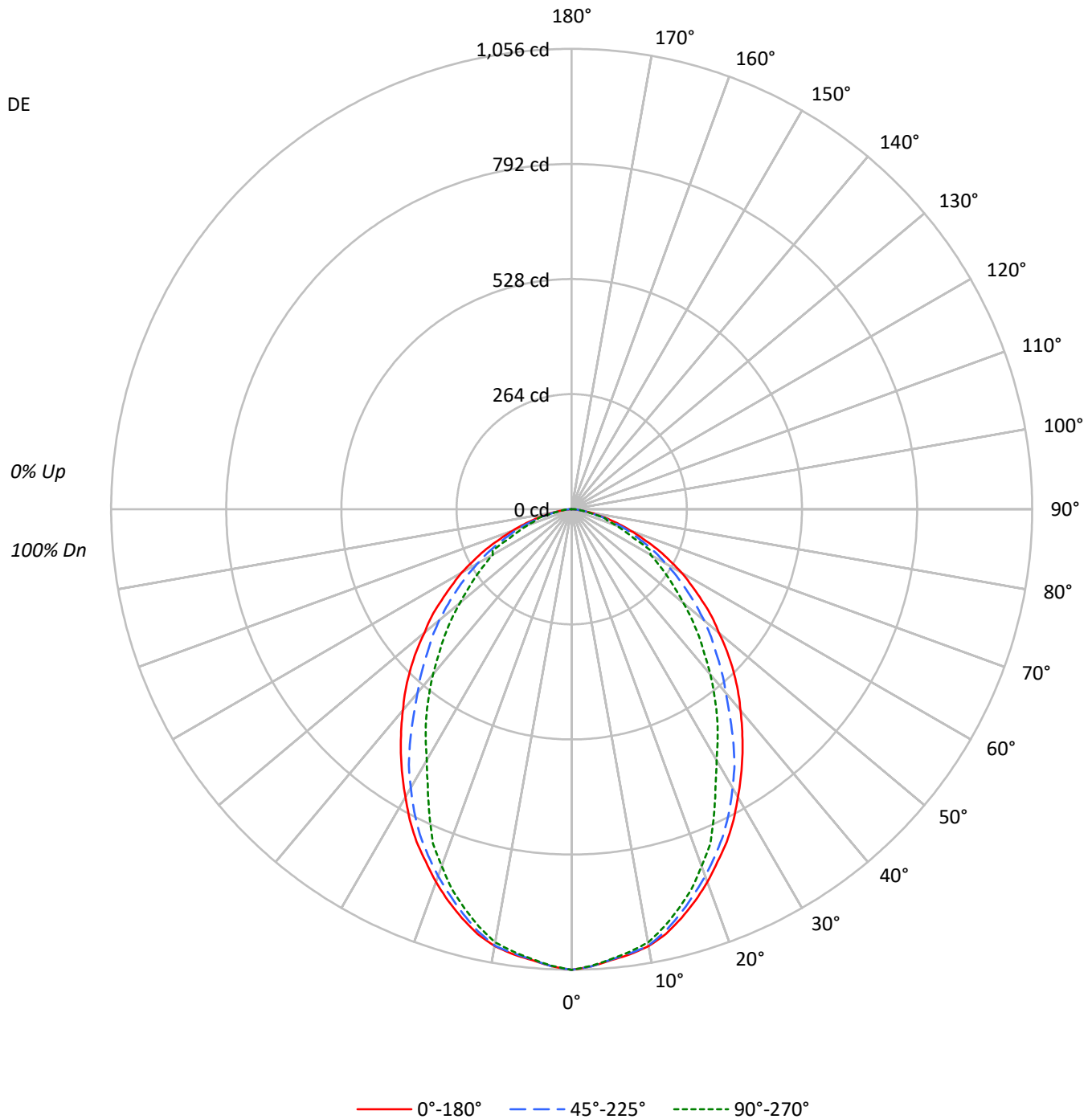
Lumens per Lamp: N/A
Luminaire Lumens: 2074.0 lumens
Efficiency: N/A
Efficacy: 88.6 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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



TEST NUMBER: P560469
CATALOG NUMBER: FSR-12-2-LD4-2LO-40-UNV-82-86-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P560469

CATALOG NUMBER: FSR-12-2-LD4-2LO-40-UNV-82-86-EDD

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°	5686	5686	5686
5°	5608	5602	5595
10°	5560	5554	5513
15°	5410	5356	5281
20°	5211	5127	4987
25°	4997	4888	4584
30°	4736	4584	4129
35°	4485	4237	3820
40°	4230	3861	3475
45°	3988	3570	3142
50°	3692	3313	2802
55°	3415	3003	2510
60°	3129	2682	2249
65°	2753	2348	1990
70°	2268	2057	1692
75°	1803	1574	1651
80°	1212	1134	1060
85°	753	908	1056

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3988 cd/sqm



TEST NUMBER: P560469

CATALOG NUMBER: FSR-12-2-LD4-2LO-40-UNV-82-86-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.3	4.7
10°-20°	269.9	13.0
20°-30°	373.7	18.0
30°-40°	398.4	19.2
40°-50°	363.5	17.5
50°-60°	284.8	13.7
60°-70°	185.6	8.9
70°-80°	82.2	4.0
80°-90°	17.6	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°	741.9	35.8
0°-40°	1140.3	55.0
0°-60°	1788.5	86.2
0°-90°	2074.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2074.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1056	1056	1056	1056	1056	
5°	1038	1037	1037	1036	1036	99
15°	971	971	961	951	948	273
25°	842	837	823	794	772	386
35°	683	678	645	596	581	427
45°	524	513	469	430	413	404
55°	364	353	320	282	268	326
65°	216	204	184	188	156	213
75°	87	81	76	72	79	93
85°	12	13	15	16	17	17
90°	0	0	0	0	0	



TEST NUMBER: P560469

CATALOG NUMBER: FSR-12-2-LD4-2LO-40-UNV-82-86-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1056.5	1056.5	1056.5	1056.5	1056.5
2.5°	1049.1	1049.1	1049.1	1047.9	1047.9
5°	1038.1	1036.9	1036.9	1035.7	1035.7
7.5°	1029.6	1028.4	1027.2	1025.9	1023.5
10°	1017.4	1017.4	1016.2	1010.1	1008.8
12.5°	997.8	996.6	991.7	983.2	980.7
15°	971.0	971.0	961.2	951.4	947.8
17.5°	941.7	940.4	928.2	918.5	913.6
20°	909.9	907.5	895.2	879.4	870.8
22.5°	874.5	874.5	859.8	839.1	830.5
25°	841.5	836.6	823.2	793.9	771.9
27.5°	803.6	796.3	781.7	740.1	714.5
30°	762.1	758.5	737.7	684.0	664.4
32.5°	723.0	716.9	694.9	638.8	622.9
35°	682.7	677.8	644.9	596.0	581.4
37.5°	642.4	636.3	594.8	555.7	537.4
40°	602.1	594.8	549.6	514.2	494.6
42.5°	564.3	554.5	510.5	472.7	450.7
45°	524.0	513.0	469.0	429.9	412.8
47.5°	483.7	473.9	433.6	393.3	373.7
50°	440.9	432.4	395.7	355.4	334.6
52.5°	405.5	392.1	356.6	316.3	299.2
55°	364.0	353.0	320.0	282.1	267.5
57.5°	326.1	315.1	284.6	249.2	236.9
60°	290.7	274.8	249.2	218.6	208.9
62.5°	251.6	239.4	217.4	191.8	204.0
65°	216.2	204.0	184.4	188.1	156.3
67.5°	177.1	171.0	153.9	136.8	131.9
70°	144.1	136.8	130.7	112.4	107.5
72.5°	114.8	107.5	98.9	89.2	85.5
75°	86.7	80.6	75.7	72.1	79.4
77.5°	59.8	57.4	53.7	50.1	48.9
80°	39.1	37.9	36.6	35.4	34.2
82.5°	23.2	23.2	23.2	23.2	23.2
85°	12.2	13.4	14.7	15.9	17.1
87.5°	7.3	7.3	8.5	9.8	11.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)