

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: P560517

Luminaire Tested: FSR-12-2-LD4-2LO-50-UNV-81-86-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560517
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-50-UNV-81-86-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

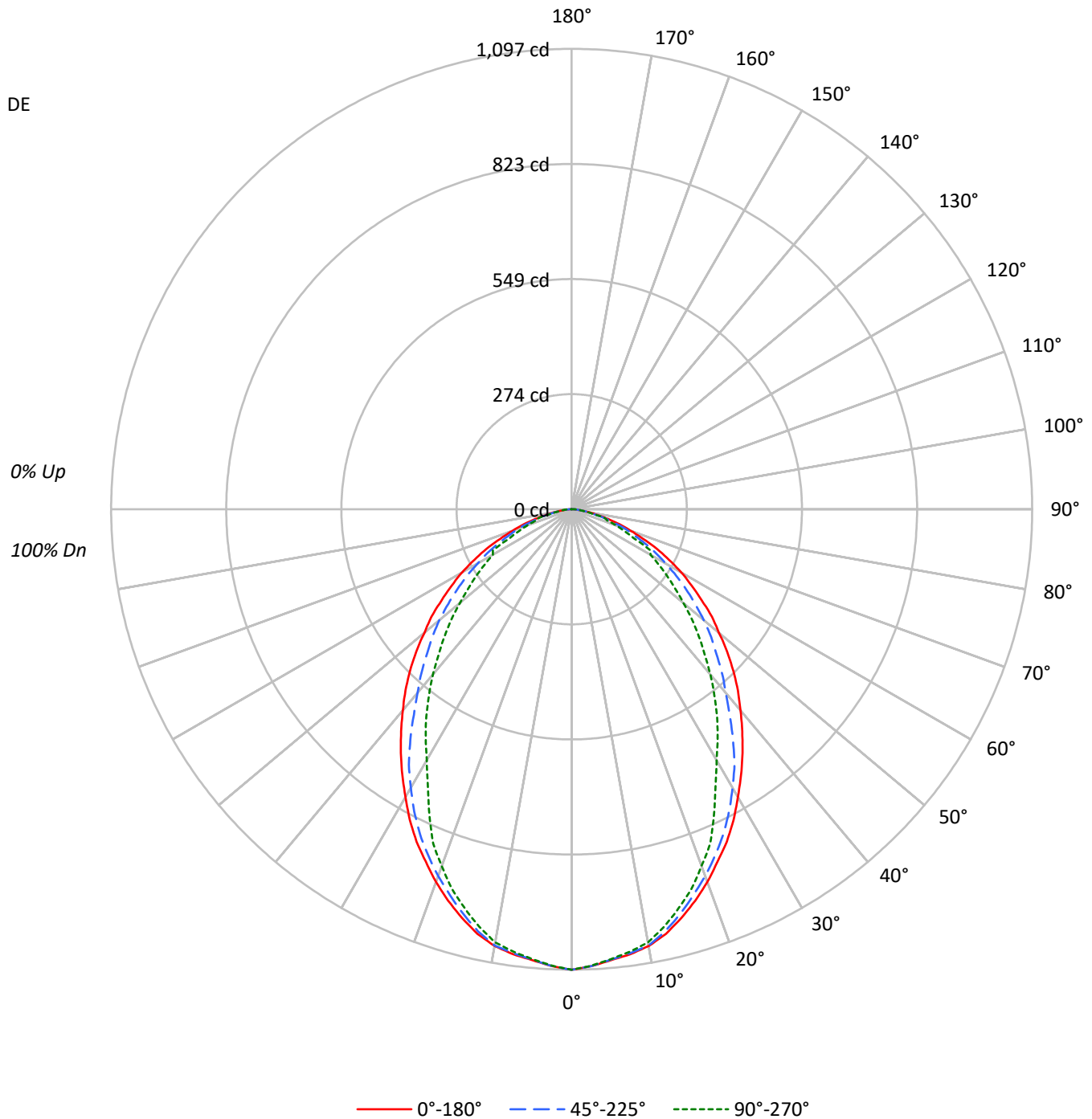
Lumens per Lamp: N/A
Luminaire Lumens: 2154.0 lumens
Efficiency: N/A
Efficacy: 92.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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: P560517
CATALOG NUMBER: FSR-12-2-LD4-2LO-50-UNV-81-86-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P560517

CATALOG NUMBER: FSR-12-2-LD4-2LO-50-UNV-81-86-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	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	48	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°	5905	5905	5905
5°	5825	5818	5811
10°	5774	5768	5726
15°	5619	5562	5484
20°	5412	5325	5180
25°	5190	5077	4761
30°	4919	4762	4288
35°	4659	4400	3967
40°	4394	4010	3609
45°	4142	3707	3263
50°	3834	3441	2910
55°	3547	3118	2607
60°	3250	2786	2335
65°	2859	2439	2068
70°	2356	2135	1756
75°	1874	1634	1713
80°	1258	1181	1100
85°	784	939	1099

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4142 cd/sqm

TEST NUMBER: P560517

CATALOG NUMBER: FSR-12-2-LD4-2LO-50-UNV-81-86-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.1	4.7
10°-20°	280.3	13.0
20°-30°	388.1	18.0
30°-40°	413.8	19.2
40°-50°	377.5	17.5
50°-60°	295.7	13.7
60°-70°	192.7	8.9
70°-80°	85.4	4.0
80°-90°	18.3	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°	770.5	35.8
0°-40°	1184.3	55.0
0°-60°	1857.5	86.2
0°-90°	2154.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2154.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1097	1097	1097	1097	1097	
5°	1078	1077	1077	1076	1076	102
15°	1008	1008	998	988	984	283
25°	874	869	855	824	802	401
35°	709	704	670	619	604	443
45°	544	533	487	446	429	419
55°	378	367	332	293	278	339
65°	224	212	192	195	162	221
75°	90	84	79	75	82	97
85°	13	14	15	16	18	18
90°	0	0	0	0	0	



TEST NUMBER: P560517

CATALOG NUMBER: FSR-12-2-LD4-2LO-50-UNV-81-86-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1097.2	1097.2	1097.2	1097.2	1097.2
2.5°	1089.6	1089.6	1089.6	1088.3	1088.3
5°	1078.2	1076.9	1076.9	1075.7	1075.7
7.5°	1069.3	1068.0	1066.8	1065.5	1063.0
10°	1056.6	1056.6	1055.4	1049.0	1047.7
12.5°	1036.3	1035.1	1030.0	1021.1	1018.6
15°	1008.4	1008.4	998.3	988.1	984.3
17.5°	978.0	976.7	964.0	953.9	948.8
20°	945.0	942.5	929.8	913.3	904.4
22.5°	908.2	908.2	893.0	871.4	862.6
25°	874.0	868.9	854.9	824.5	801.7
27.5°	834.6	827.0	811.8	768.7	742.0
30°	791.5	787.7	766.2	710.3	690.0
32.5°	750.9	744.6	721.8	663.4	646.9
35°	709.1	704.0	669.7	619.0	603.8
37.5°	667.2	660.9	617.7	577.1	558.1
40°	625.4	617.7	570.8	534.0	513.7
42.5°	586.0	575.9	530.2	490.9	468.1
45°	544.2	532.8	487.1	446.5	428.7
47.5°	502.3	492.2	450.3	408.4	388.1
50°	457.9	449.0	411.0	369.1	347.6
52.5°	421.1	407.2	370.4	328.5	310.8
55°	378.0	366.6	332.3	293.0	277.8
57.5°	338.7	327.3	295.6	258.8	246.1
60°	301.9	285.4	258.8	227.1	216.9
62.5°	261.3	248.6	225.8	199.1	211.8
65°	224.5	211.8	191.5	195.3	162.4
67.5°	183.9	177.6	159.8	142.1	137.0
70°	149.7	142.1	135.7	116.7	111.6
72.5°	119.2	111.6	102.7	92.6	88.8
75°	90.1	83.7	78.6	74.8	82.4
77.5°	62.2	59.6	55.8	52.0	50.7
80°	40.6	39.3	38.1	36.8	35.5
82.5°	24.1	24.1	24.1	24.1	24.1
85°	12.7	14.0	15.2	16.5	17.8
87.5°	7.6	7.6	8.9	10.1	11.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)