

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: P562929

Luminaire Tested: FSR-24-4-LD4-2STD-40-UNV-80-84-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562929
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-24-4-LD4-2STD-40-UNV-80-84-EDD
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7883.0 lumens
Efficiency: N/A
Efficacy: 118.4 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

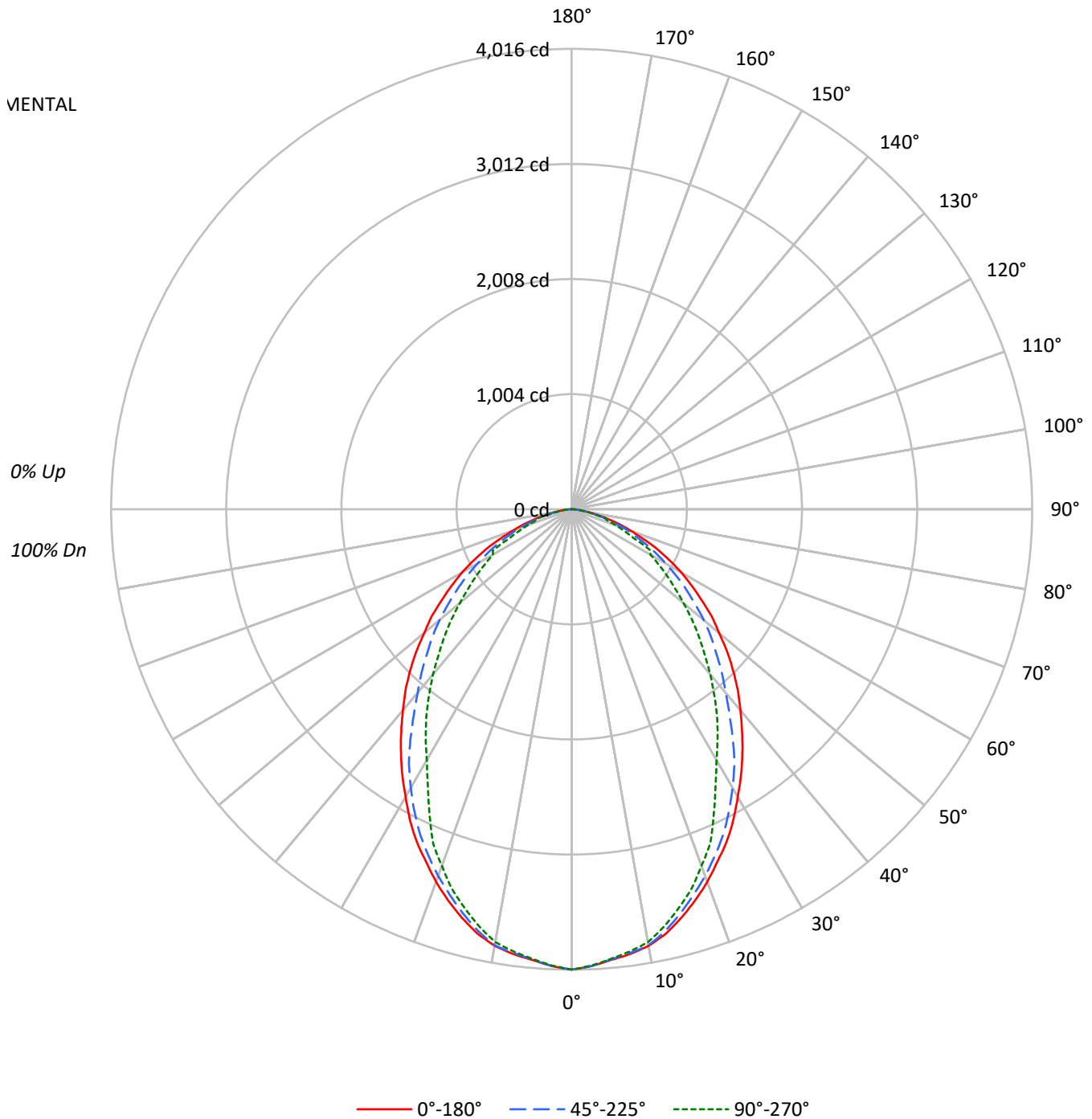
Input Watts (W): 66.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	5403	5403	5403
5°	5329	5323	5317
10°	5283	5277	5239
15°	5141	5089	5018
20°	4952	4872	4739
25°	4748	4645	4356
30°	4500	4356	3924
35°	4262	4026	3630
40°	4020	3669	3302
45°	3789	3392	2986
50°	3508	3148	2663
55°	3245	2853	2385
60°	2973	2548	2136
65°	2616	2232	1892
70°	2155	1954	1607
75°	1713	1496	1568
80°	1151	1079	1007
85°	716	860	1003

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3789 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	373.8	4.7
10°-20°	1025.8	13.0
20°-30°	1420.2	18.0
30°-40°	1514.3	19.2
40°-50°	1381.5	17.5
50°-60°	1082.3	13.7
60°-70°	705.4	8.9
70°-80°	312.5	4.0
80°-90°	67.1	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°	2819.8	35.8
0°-40°	4334.2	55.0
0°-60°	6798.0	86.2
0°-90°	7883.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7883.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4016	4016	4016	4016	4016	
5°	3946	3941	3941	3937	3937	375
15°	3690	3690	3653	3616	3602	1038
25°	3198	3180	3129	3017	2934	1468
35°	2595	2576	2451	2265	2210	1622
45°	1992	1950	1783	1634	1569	1534
55°	1383	1342	1216	1072	1017	1241
65°	822	775	701	715	594	810
75°	330	306	288	274	302	353
85°	46	51	56	60	65	64
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4015.5	4015.5	4015.5	4015.5	4015.5
2.5°	3987.6	3987.6	3987.6	3983.0	3983.0
5°	3945.9	3941.2	3941.2	3936.6	3936.6
7.5°	3913.4	3908.7	3904.1	3899.4	3890.2
10°	3866.9	3866.9	3862.3	3839.1	3834.4
12.5°	3792.7	3788.0	3769.5	3737.0	3727.7
15°	3690.5	3690.5	3653.4	3616.3	3602.3
17.5°	3579.1	3574.5	3528.1	3490.9	3472.4
20°	3458.4	3449.1	3402.7	3342.4	3309.9
22.5°	3323.8	3323.8	3268.1	3189.2	3156.7
25°	3198.5	3179.9	3128.8	3017.4	2933.9
27.5°	3054.6	3026.7	2971.0	2813.2	2715.7
30°	2896.7	2882.8	2803.9	2599.6	2525.4
32.5°	2748.2	2725.0	2641.4	2427.9	2367.5
35°	2595.0	2576.4	2451.1	2265.4	2209.7
37.5°	2441.8	2418.6	2260.7	2112.2	2042.6
40°	2288.6	2260.7	2089.0	1954.4	1880.1
42.5°	2144.7	2107.6	1940.4	1796.5	1713.0
45°	1991.5	1949.7	1782.6	1634.1	1569.1
47.5°	1838.3	1801.2	1648.0	1494.8	1420.5
50°	1675.8	1643.3	1504.1	1350.9	1272.0
52.5°	1541.2	1490.1	1355.5	1202.3	1137.3
55°	1383.4	1341.6	1216.3	1072.3	1016.6
57.5°	1239.5	1197.7	1081.6	947.0	900.6
60°	1104.8	1044.5	947.0	831.0	793.8
62.5°	956.3	909.9	826.3	728.8	775.2
65°	821.7	775.2	701.0	714.9	594.2
67.5°	673.1	649.9	584.9	519.9	501.4
70°	547.8	519.9	496.7	427.1	408.5
72.5°	436.4	408.5	376.0	338.9	325.0
75°	329.6	306.4	287.8	273.9	301.7
77.5°	227.5	218.2	204.3	190.3	185.7
80°	148.6	143.9	139.3	134.6	130.0
82.5°	88.2	88.2	88.2	88.2	88.2
85°	46.4	51.1	55.7	60.3	65.0
87.5°	27.9	27.9	32.5	37.1	41.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)