

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: P560241

Luminaire Tested: FSR-12-2-LD4-2HI-40-UNV-80-84-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560241
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-LD4-2HI-40-UNV-80-84-EDD
Description: 1X2 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

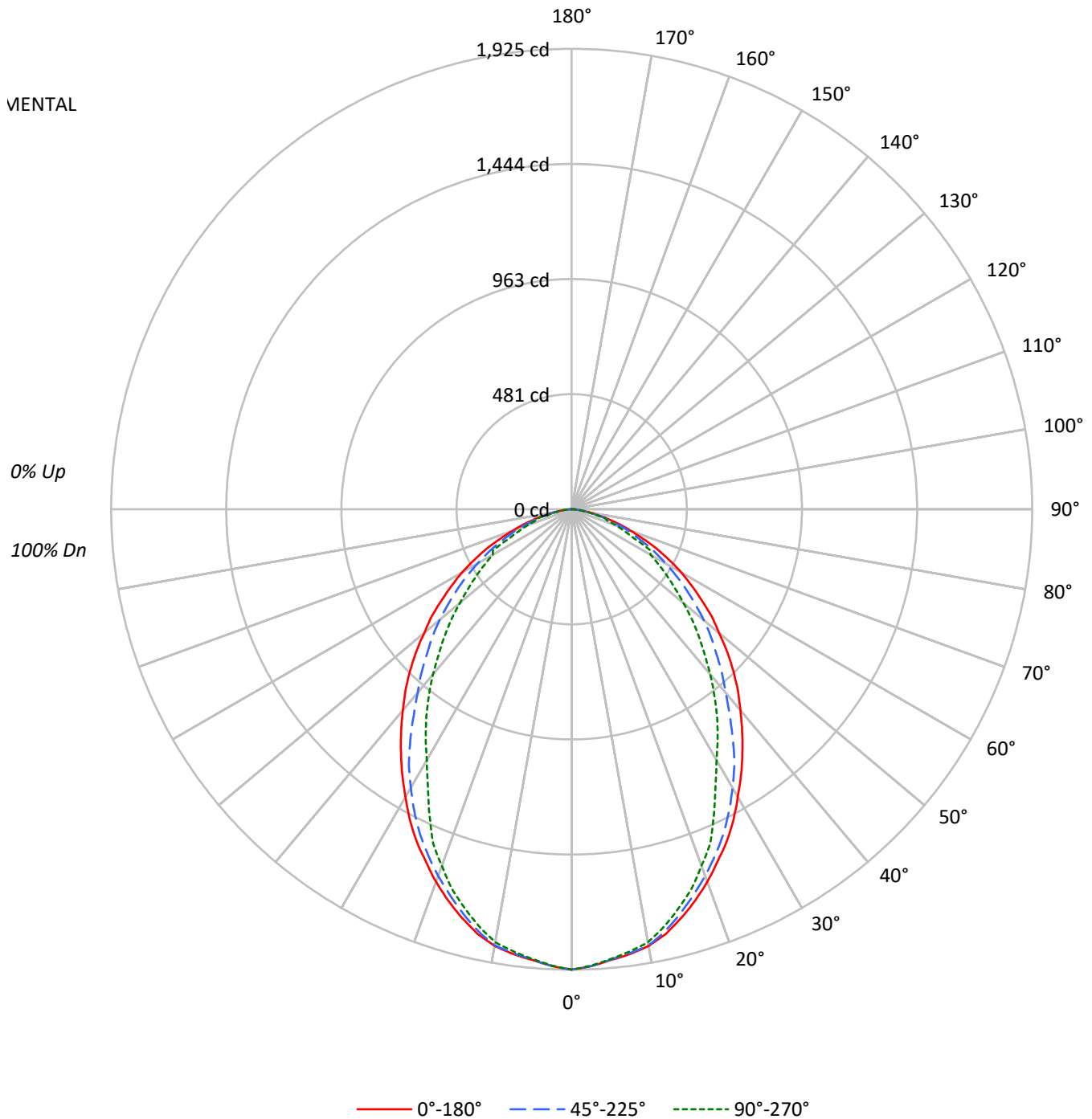
Lumens per Lamp: N/A
Luminaire Lumens: 3779.0 lumens
Efficiency: N/A
Efficacy: 87.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
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	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°	10360	10360	10360
5°	10219	10208	10195
10°	10131	10118	10046
15°	9858	9758	9622
20°	9495	9342	9088
25°	9105	8907	8352
30°	8630	8353	7523
35°	8173	7720	6960
40°	7708	7035	6332
45°	7266	6505	5725
50°	6727	6037	5106
55°	6223	5471	4573
60°	5701	4887	4096
65°	5016	4279	3628
70°	4132	3747	3081
75°	3285	2870	3009
80°	2207	2070	1931
85°	1377	1649	1927

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7266 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	179.2	4.7
10°-20°	491.8	13.0
20°-30°	680.8	18.0
30°-40°	726.0	19.2
40°-50°	662.3	17.5
50°-60°	518.8	13.7
60°-70°	338.1	8.9
70°-80°	149.8	4.0
80°-90°	32.2	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°	1351.8	35.8
0°-40°	2077.7	55.0
0°-60°	3258.9	86.2
0°-90°	3779.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3779.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1925	1925	1925	1925	1925	
5°	1892	1889	1889	1887	1887	180
15°	1769	1769	1751	1734	1727	497
25°	1533	1524	1500	1446	1406	704
35°	1244	1235	1175	1086	1059	778
45°	955	935	855	783	752	735
55°	663	643	583	514	487	595
65°	394	372	336	343	285	388
75°	158	147	138	131	145	169
85°	22	24	27	29	31	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1925.0	1925.0	1925.0	1925.0	1925.0
2.5°	1911.6	1911.6	1911.6	1909.4	1909.4
5°	1891.6	1889.4	1889.4	1887.1	1887.1
7.5°	1876.0	1873.8	1871.6	1869.3	1864.9
10°	1853.8	1853.8	1851.5	1840.4	1838.2
12.5°	1818.2	1815.9	1807.0	1791.4	1787.0
15°	1769.2	1769.2	1751.4	1733.6	1726.9
17.5°	1715.8	1713.6	1691.3	1673.5	1664.6
20°	1657.9	1653.5	1631.2	1602.3	1586.7
22.5°	1593.4	1593.4	1566.7	1528.9	1513.3
25°	1533.3	1524.4	1499.9	1446.5	1406.5
27.5°	1464.3	1451.0	1424.3	1348.6	1301.9
30°	1388.7	1382.0	1344.1	1246.2	1210.6
32.5°	1317.4	1306.3	1266.3	1163.9	1135.0
35°	1244.0	1235.1	1175.0	1086.0	1059.3
37.5°	1170.6	1159.4	1083.8	1012.6	979.2
40°	1097.1	1083.8	1001.4	936.9	901.3
42.5°	1028.1	1010.3	930.2	861.2	821.2
45°	954.7	934.7	854.6	783.3	752.2
47.5°	881.3	863.5	790.0	716.6	681.0
50°	803.4	787.8	721.0	647.6	609.8
52.5°	738.8	714.4	649.8	576.4	545.2
55°	663.2	643.1	583.1	514.1	487.4
57.5°	594.2	574.2	518.5	454.0	431.7
60°	529.6	500.7	454.0	398.3	380.5
62.5°	458.4	436.2	396.1	349.4	371.6
65°	393.9	371.6	336.0	342.7	284.9
67.5°	322.7	311.6	280.4	249.2	240.3
70°	262.6	249.2	238.1	204.7	195.8
72.5°	209.2	195.8	180.3	162.5	155.8
75°	158.0	146.9	138.0	131.3	144.7
77.5°	109.0	104.6	97.9	91.2	89.0
80°	71.2	69.0	66.8	64.5	62.3
82.5°	42.3	42.3	42.3	42.3	42.3
85°	22.3	24.5	26.7	28.9	31.2
87.5°	13.4	13.4	15.6	17.8	20.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)