

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P212908

Luminaire Tested: **FPS-4-LD4-2LO-50-CLR**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P212908
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35662)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FPS-4-LD4-2LO-50-CLR
Description: FPS 4' LED FIXTURE WITH CLEAR LENS
Light Source: (168) EATON 5000K CCT, 85 CRI LEDS
Ballast/Driver: -

Summary

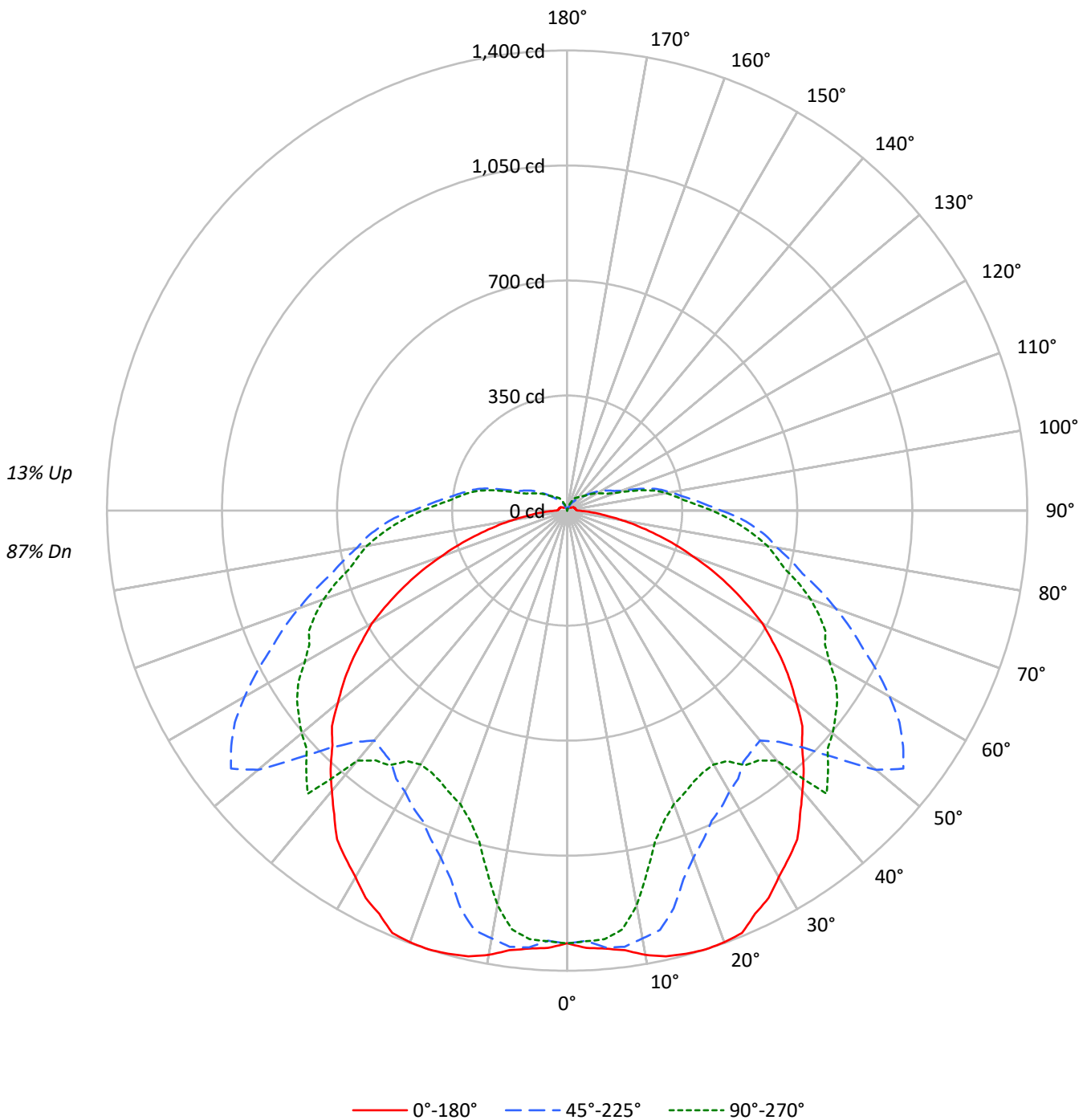
Lumens per Lamp: N/A
Luminaire Lumens: 6203.3 lumens
Efficiency: N/A
Efficacy: 131.5 lumens/watt
Spacing Criteria (0/90/45): 1.42 / 0.97 / 1.67
Luminous Opening: Rectangular w/ Sides (W: 0.58' x L: 4.1' x H: 0.33')
CIE Type: Semi-Direct

Input Watts (W): 47.16
Input Voltage (V): 120
Input Current (A_{in}): 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: 25 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	116	116	116	116	112	112	112	112	104	104	104	97	97	97	90	90	90	87
1	102	96	90	85	98	92	87	82	85	81	77	79	76	73	73	71	68	65
2	91	81	73	66	87	78	70	64	72	66	61	67	62	57	62	58	54	51
3	82	70	60	53	78	67	58	51	62	55	49	58	51	46	53	48	44	41
4	74	61	51	43	71	59	49	42	54	47	40	50	44	38	47	41	36	34
5	68	54	44	36	65	52	43	36	48	40	34	45	38	32	42	36	31	28
6	62	48	38	31	60	46	37	31	43	35	29	40	33	28	37	31	27	24
7	58	43	34	27	55	42	33	27	39	31	25	36	29	24	34	28	23	21
8	53	39	30	24	51	38	29	23	35	28	22	33	26	22	31	25	21	18
9	50	36	27	21	48	35	26	21	32	25	20	30	24	19	29	23	18	16
10	47	33	25	19	45	32	24	19	30	23	18	28	22	17	26	21	17	15

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5920	5920	5920
5°	5994	5788	5627
10°	6178	5580	5057
15°	6359	5189	4189
20°	6494	4602	3764
25°	6469	4250	3566
30°	6385	4046	3482
35°	6341	3873	3706
40°	6118	3862	3938
45°	5936	4438	4543
50°	5805	5536	4387
55°	5622	5894	4332
60°	5403	5665	4167
65°	4958	5308	4145
70°	4386	5035	4030
75°	3742	4735	3801
80°	3012	4638	3778
85°	2274	4697	3640



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.5	2.0
10°-20°	349.8	5.6
20°-30°	511.1	8.2
30°-40°	631.2	10.2
40°-50°	806.6	13.0
50°-60°	935.9	15.1
60°-70°	858.0	13.8
70°-80°	684.7	11.0
80°-90°	506.2	8.2
90°-100°	336.5	5.4
100°-110°	211.7	3.4
110°-120°	112.6	1.8
120°-130°	66.6	1.1
130°-140°	35.2	0.6
140°-150°	19.9	0.3
150°-160°	8.5	0.1
160°-170°	1.7	0.0
170°-180°	0.5	0.0
0°-30°	987.4	15.9
0°-40°	1618.5	26.1
0°-60°	3361.0	54.2
0°-90°	5409.9	87.2
90°-120°	660.8	10.7
90°-150°	782.6	12.6
90°-180°	793.0	12.8
0°-180°	6203.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1317	1317	1317	1317	1317	
5°	1338	1331	1334	1326	1309	129
15°	1396	1403	1253	1095	1038	395
25°	1353	1298	1041	954	910	625
35°	1221	1044	934	944	945	758
45°	1009	876	1020	1252	1123	784
55°	800	889	1248	1171	1004	715
65°	547	756	993	1019	867	541
75°	281	542	742	800	685	300
85°	85	352	571	635	531	87
90°	32	270	469	524	441	20
95°	28	210	383	429	358	22
105°	25	119	260	297	239	26
115°	22	82	144	150	124	22
125°	16	47	94	100	87	15
135°	12	23	54	65	60	9
145°	11	12	34	50	48	7
155°	9	11	15	28	28	4
165°	8	10	7	0	0	2
175°	8	10	7	0	0	1
180°	5	5	5	5	5	



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CATALOG NUMBER: FPS-4-LD4-2LO-50-CLR

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1316.7	1316.7	1316.7	1316.7	1316.7
2.5°	1331.7	1326.7	1310.1	1315.9	1311.7
5°	1337.6	1330.9	1334.2	1325.9	1309.2
7.5°	1349.2	1354.2	1338.4	1315.9	1285.1
10°	1372.5	1370.9	1321.7	1270.1	1219.3
12.5°	1389.2	1385.0	1306.8	1181.0	1124.4
15°	1395.9	1403.4	1252.6	1095.2	1037.7
17.5°	1400.0	1388.4	1176.0	1050.2	986.1
20°	1397.5	1362.6	1123.5	1011.1	950.3
22.5°	1390.9	1348.4	1082.7	974.4	931.1
25°	1353.4	1297.6	1041.1	953.6	910.3
27.5°	1328.4	1232.6	1016.9	939.5	897.0
30°	1287.6	1185.2	986.9	931.1	892.0
32.5°	1254.3	1117.7	967.8	926.1	903.6
35°	1221.0	1043.6	933.6	944.5	945.3
37.5°	1164.3	991.1	922.0	981.9	957.8
40°	1113.5	934.5	912.8	998.6	992.8
42.5°	1065.2	896.2	954.5	1072.7	1168.5
45°	1009.4	876.2	1020.2	1251.8	1122.7
47.5°	971.1	871.2	1115.2	1259.3	1074.4
50°	910.3	872.0	1226.8	1253.4	1054.4
52.5°	857.0	884.5	1289.3	1220.1	1028.6
55°	800.4	888.7	1247.6	1171.0	1003.6
57.5°	740.4	868.7	1198.5	1141.8	969.4
60°	685.4	837.9	1133.5	1091.0	922.0
62.5°	615.5	797.9	1065.2	1053.6	884.5
65°	547.2	756.2	992.8	1019.4	867.0
67.5°	478.1	706.3	932.8	966.9	829.5
70°	408.1	657.1	868.7	908.6	787.9
72.5°	344.8	601.3	806.2	859.5	739.6
75°	280.7	542.2	742.1	800.4	685.4
77.5°	223.2	483.1	695.4	760.4	651.3
80°	169.9	433.1	648.0	720.4	618.8
82.5°	123.3	388.1	614.6	674.6	575.5
85°	85.0	352.3	571.3	634.6	531.4
87.5°	55.8	316.5	526.4	573.0	485.6
90°	32.5	269.8	468.9	523.9	440.6
92.5°	28.3	232.4	421.4	475.6	395.6
95°	27.5	209.9	383.1	428.9	358.1
97.5°	26.7	189.1	348.1	397.3	331.5
100°	26.7	169.9	319.0	370.6	305.7
102.5°	25.8	147.4	293.2	341.5	278.2
105°	25.0	119.1	259.9	297.3	239.0
107.5°	24.2	99.1	214.9	241.5	194.1
110°	23.3	92.4	176.6	191.6	156.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	23.3	87.4	155.7	164.9	134.9
115°	22.5	81.6	144.1	149.9	124.1
117.5°	21.7	75.0	132.4	137.4	113.3
120°	20.0	66.6	119.9	125.8	104.9
122.5°	17.5	56.6	107.4	113.3	96.6
125°	15.8	46.6	94.1	99.9	87.4
127.5°	15.0	40.0	81.6	88.3	78.3
130°	14.2	32.5	70.8	78.3	70.8
132.5°	12.5	27.5	61.6	70.8	65.0
135°	11.7	23.3	54.1	65.0	60.0
137.5°	11.7	20.0	47.5	60.0	55.8
140°	10.8	16.7	42.5	55.8	53.3
142.5°	10.8	14.2	38.3	53.3	50.0
145°	10.8	12.5	34.1	50.0	47.5
147.5°	10.0	12.5	30.8	45.8	45.0
150°	10.0	11.7	26.7	40.8	40.8
152.5°	10.0	11.7	20.8	34.1	35.0
155°	9.2	10.8	15.0	27.5	28.3
157.5°	9.2	10.8	10.0	19.2	20.0
160°	8.3	10.8	6.7	10.0	10.8
162.5°	8.3	10.0	7.5	2.5	2.5
165°	8.3	10.0	6.7	0.0	0.0
167.5°	7.5	10.0	6.7	0.0	0.0
170°	8.3	10.0	6.7	0.0	0.0
172.5°	7.5	10.0	6.7	0.0	0.0
175°	7.5	10.0	6.7	0.0	0.0
177.5°	7.5	10.0	5.8	0.0	0.0
180°	5.0	5.0	5.0	5.0	5.0

(END OF REPORT)