

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: 168P148

Luminaire Tested: **FSPC-32A**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: 168P148
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FSPC-32A
Description: Fail-Safe VR 2000 Linear Series Luminaire
with a clear prismatic lens.
Light Source: One - FO32/35K - 2800 Lumens - 32 Watts
Ballast/Driver: Triad B132I120RH-A Electronic - L.O.B.F. = UNKNOWN

Summary

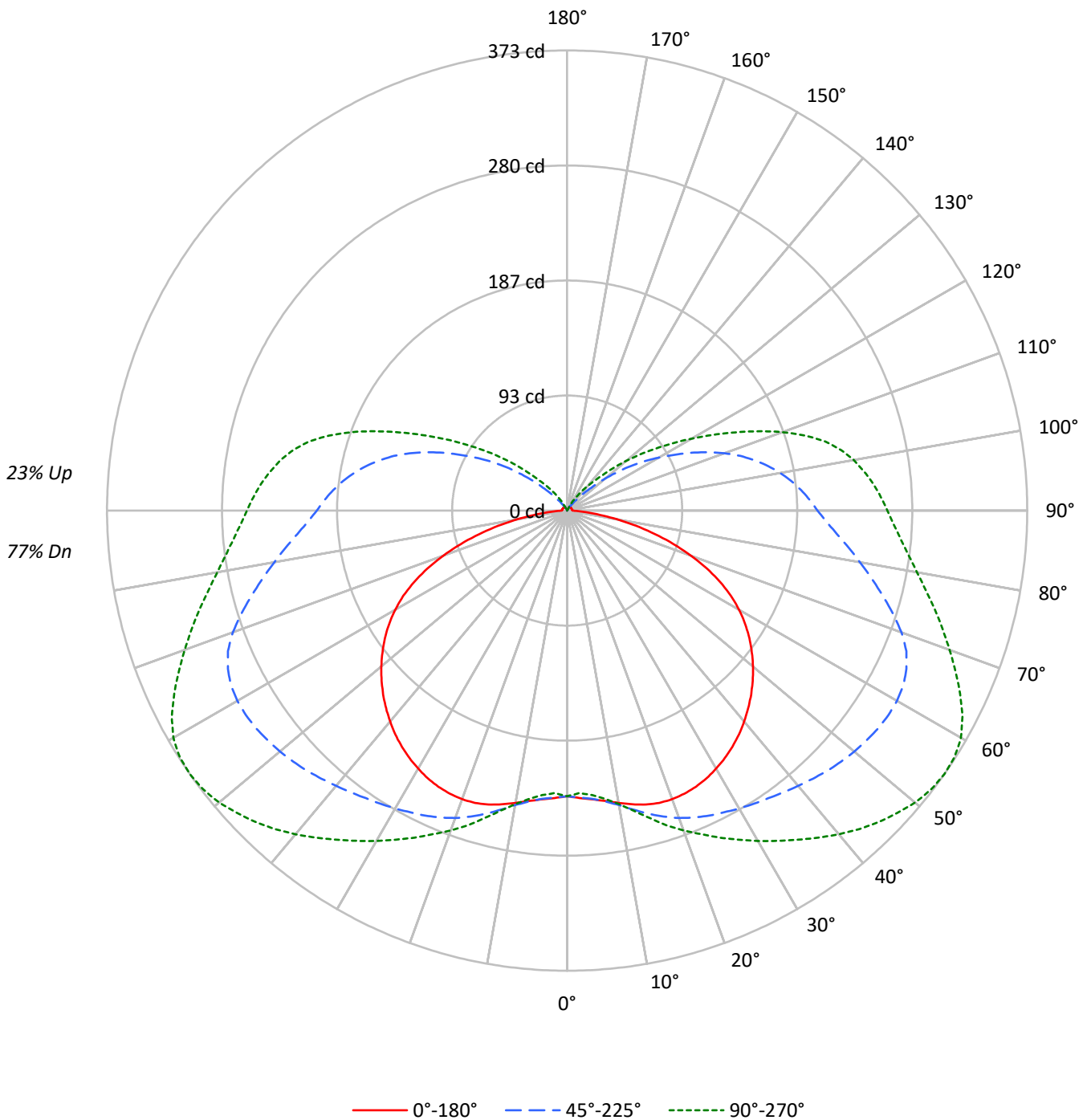
Lumens per Lamp: 2800 (1 lamp)
Luminaire Lumens: 2098.4 lumens
Efficiency: 74.9%
Efficacy: 69.9 lumens/watt
Spacing Criteria (0/90/45): 1.52 / 2.13 / 2.04
Luminous Opening: Rectangular w/ Sides (W: 0.36' x L: 4.1' x H: 0.31')
CIE Type: Semi-Direct

Input Watts (W): 30
Input Voltage (V): NR
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: 25 FT



TEST NUMBER: 168P148
CATALOG NUMBER: FSPC-32A

Luminous Intensity Polar Plot





TEST NUMBER: 168P148
 CATALOG NUMBER: FSPC-32A

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	85	85	85	85	81	81	81	81	74	74	74	67	67	67	61	61	61	58
1	74	69	64	60	70	66	61	58	59	56	53	53	51	48	48	46	44	41
2	66	58	51	46	62	55	49	44	49	45	41	44	40	37	40	36	34	31
3	59	50	42	36	55	47	40	35	42	37	32	38	33	29	34	30	27	24
4	53	43	35	30	50	41	34	28	37	31	26	33	28	24	29	25	22	20
5	49	38	30	25	46	36	29	24	32	26	22	29	24	20	26	22	18	16
6	45	34	26	21	42	32	25	20	29	23	19	26	21	17	23	19	16	14
7	41	30	23	18	39	29	22	17	26	20	16	23	18	15	21	17	13	12
8	38	27	20	16	36	26	19	15	23	18	14	21	16	13	19	15	12	10
9	35	25	18	14	33	24	17	13	21	16	12	19	15	11	17	13	10	9
10	33	23	16	12	31	22	16	12	20	14	11	18	13	10	16	12	9	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1688	1688	1688
5°	1709	1623	1575
10°	1758	1607	1553
15°	1826	1631	1582
20°	1881	1658	1630
25°	1920	1677	1679
30°	1949	1698	1740
35°	1975	1731	1809
40°	1998	1782	1893
45°	2022	1850	1979
50°	2047	1926	2062
55°	2070	2011	2127
60°	2078	2097	2158
65°	2031	2164	2131
70°	1887	2181	2089
75°	1624	2146	2062
80°	1214	2128	2055
85°	678	2145	2097



TEST NUMBER: 168P148
 CATALOG NUMBER: FSPC-32A

ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	22.6	1.1	0.8	0°	232	232	232	232	232	
10°-20°	72.1	3.4	2.6	5°	235	234	234	234	231	23
20°-30°	125.8	6.0	4.5	15°	247	249	254	258	258	70
30°-40°	178.1	8.5	6.4	25°	247	257	273	287	292	114
40°-50°	226.4	10.8	8.1	35°	234	252	285	317	326	146
50°-60°	264.1	12.6	9.4	45°	211	244	298	344	357	163
60°-70°	275.3	13.1	9.8	55°	180	237	308	359	373	161
70°-80°	249.5	11.9	8.9	65°	137	225	304	344	352	134
80°-90°	207.2	9.9	7.4	75°	74	190	264	300	308	78
90°-100°	176.1	8.4	6.3	85°	15	131	220	262	272	18
100°-110°	140.7	6.7	5.0	90°	4	107	203	249	260	3
110°-120°	91.0	4.3	3.2	95°	4	90	190	239	249	3
120°-130°	46.3	2.2	1.7	105°	4	60	158	208	216	4
130°-140°	17.7	0.8	0.6	115°	4	31	111	146	150	4
140°-150°	5.3	0.3	0.2	125°	4	8	63	87	88	3
150°-160°	0.3	0.0	0.0	135°	4	4	22	38	41	3
160°-170°	0.0	0.0	0.0	145°	4	4	5	13	15	2
170°-180°	0.0	0.0	0.0	155°	0	0	0	0	0	0
0°-30°	220.5	10.5	7.9	165°	0	0	0	0	0	0
0°-40°	398.6	19.0	14.2	175°	0	0	0	0	0	0
0°-60°	889.0	42.4	31.8	180°	0	0	0	0	0	0
0°-90°	1621.0	77.2	57.9							
90°-120°	407.7	19.4	14.6							
90°-150°	477.1	22.7	17.0							
90°-180°	477.0	22.7	17.0							
0°-180°	2098.4	100.0	74.9							



TEST NUMBER: 168P148
 CATALOG NUMBER: FSPC-32A

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	231.5	231.5	231.5	231.5	231.5
2.5°	233.2	232.6	232.7	231.8	229.2
5°	235.0	234.1	234.5	234.1	231.4
7.5°	237.4	236.8	237.7	237.8	235.6
10°	240.6	240.3	242.4	243.2	241.5
12.5°	243.9	244.5	248.3	250.2	249.2
15°	246.7	249.1	254.4	258.0	257.9
17.5°	248.5	252.9	260.1	265.7	267.5
20°	249.0	255.7	265.2	272.6	275.9
22.5°	248.4	257.1	269.3	279.6	283.9
25°	247.0	257.4	272.8	286.7	292.5
27.5°	244.7	257.0	275.7	294.1	300.7
30°	241.5	255.7	278.8	301.6	309.3
32.5°	237.9	254.2	281.7	309.2	317.4
35°	233.6	252.4	284.6	316.6	325.7
37.5°	228.8	250.2	287.9	324.0	334.2
40°	223.2	248.2	291.3	331.0	342.5
42.5°	217.3	246.1	294.8	337.8	350.2
45°	210.9	244.1	298.2	343.6	357.1
47.5°	204.0	242.1	301.2	349.9	362.8
50°	196.7	240.5	303.8	354.0	368.2
52.5°	188.7	239.1	306.0	357.6	371.6
55°	180.4	237.3	307.8	359.1	373.0
57.5°	171.1	235.2	308.7	359.0	372.3
60°	161.1	232.5	308.7	356.9	368.6
62.5°	149.8	229.2	307.2	351.4	361.3
65°	136.8	224.8	303.5	343.5	351.5
67.5°	122.6	219.0	297.6	332.4	340.8
70°	106.9	211.6	288.4	321.6	329.8
72.5°	90.5	201.8	276.8	310.7	319.1
75°	73.9	189.9	264.4	299.5	308.4
77.5°	57.2	176.0	252.5	288.5	297.6
80°	41.3	160.4	241.0	278.4	287.9
82.5°	26.8	145.2	230.1	269.3	279.3
85°	15.1	130.8	219.7	261.5	271.7
87.5°	7.2	117.7	210.3	254.4	265.1
90°	4.2	107.1	202.9	249.0	259.5
92.5°	4.2	98.5	196.9	244.4	254.5
95°	4.2	90.3	190.3	239.0	249.0
97.5°	4.1	82.4	183.3	233.1	242.8
100°	4.1	74.8	175.5	226.2	235.8
102.5°	4.0	67.2	166.9	217.8	227.2
105°	4.0	59.8	157.5	207.5	216.5
107.5°	3.9	52.4	147.2	194.5	202.2
110°	3.8	45.1	135.9	179.3	185.9



TEST NUMBER: 168P148
 CATALOG NUMBER: FSPC-32A

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.8	37.8	123.6	162.8	168.0
115°	3.8	31.0	110.7	146.0	150.0
117.5°	3.8	24.4	98.0	129.6	132.5
120°	3.8	18.1	85.8	114.3	116.7
122.5°	3.8	12.2	74.3	100.0	101.6
125°	3.8	8.0	62.9	86.7	87.6
127.5°	3.8	5.4	51.4	73.5	74.8
130°	3.8	4.6	40.4	60.6	62.8
132.5°	3.8	4.5	30.4	48.6	51.1
135°	3.8	4.4	22.0	38.2	41.0
137.5°	3.8	4.3	15.5	30.0	32.6
140°	3.8	4.2	10.6	23.2	26.1
142.5°	3.8	4.1	7.2	17.7	20.4
145°	3.8	4.1	5.0	12.9	15.3
147.5°	3.8	4.0	4.2	8.9	10.7
150°	3.7	4.1	4.0	5.8	6.9
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)