

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: P302563

Luminaire Tested: **FSP-22-32-50-CP187**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

**Test Information**

Test Method: LM-79-08  
Report Number: P302563  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1905-304-11)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FSP-22-32-50-CP187  
Description: 2x2 Fail Safe Flat Panel Clear Polycarbonate Lens .187"  
Light Source: (168) 5000 CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment:

<u>Sample No.</u>	<u>Condition</u>	<u>Description</u>
AS-5443-1	Good	WHITE TWIN R-EVOLVE FLOOD
AS-5443-2	Good	REFLECTOR
AS-5443-3	Good	DRIVER
AS-5443-4	Good	UPPER MODULE
AS-5443-5	Good	LENS
AS-5443-6	Good	DRIVER 2
AS-5443-7	Good	TRIM RING

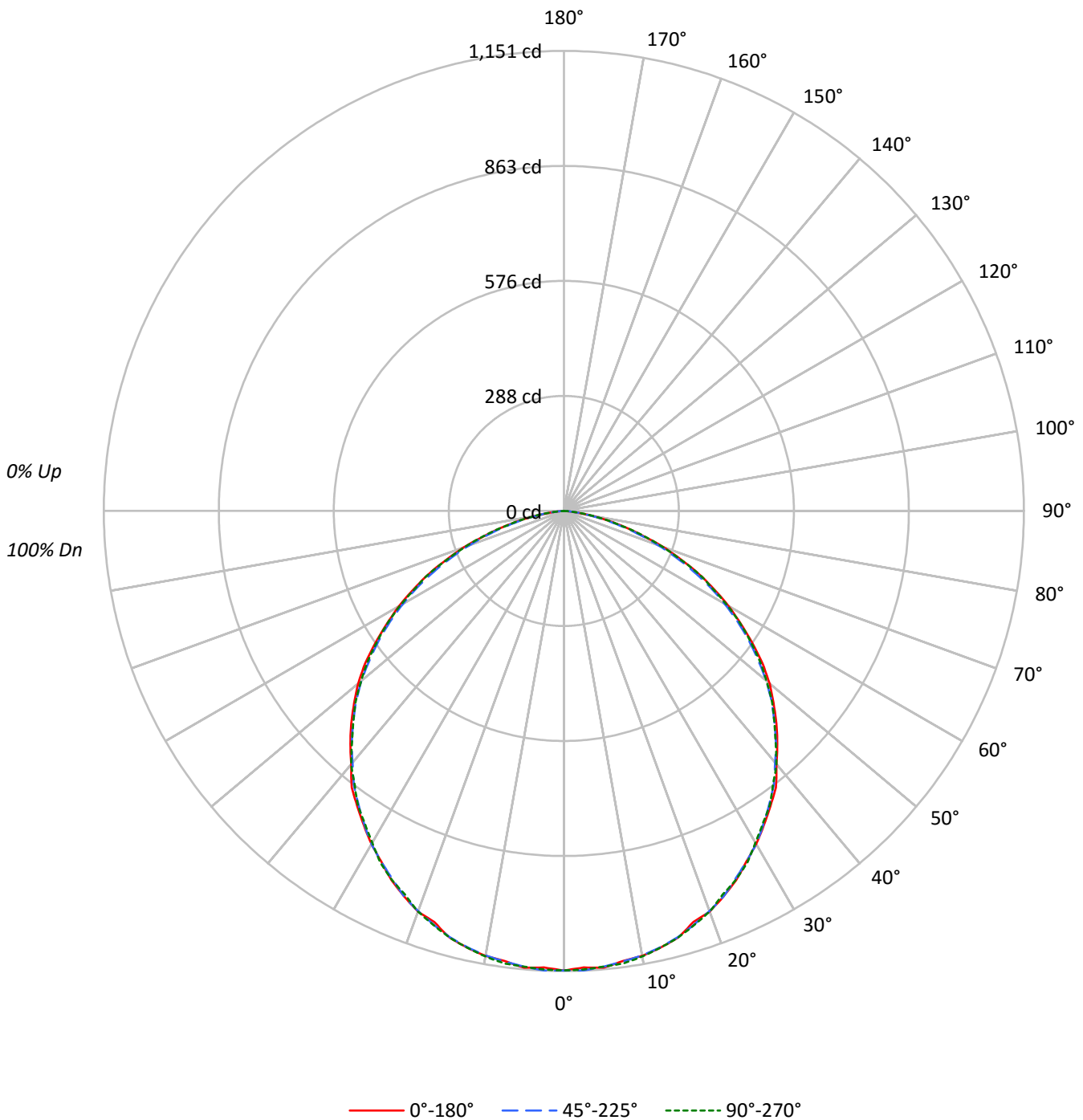
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3091.8 lumens  
Efficiency: N/A  
Efficacy: 103.1 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 30  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	101	97	107	103	99	96	98	95	93	95	92	90	91	89	87	85
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	77	74	71
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	61
4	84	72	63	57	81	70	62	56	68	61	55	66	60	55	63	58	54	52
5	77	64	55	49	75	63	55	49	61	54	48	59	53	48	57	52	47	45
6	71	58	49	43	69	57	49	42	55	48	42	53	47	42	52	46	41	39
7	66	52	44	38	64	52	43	38	50	43	37	49	42	37	47	41	37	35
8	61	48	39	34	60	47	39	34	46	39	33	45	38	33	43	37	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	27	52	40	33	27	39	32	27	38	32	27	37	31	27	25

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3093	3093	3093
5°	3098	3091	3091
10°	3089	3085	3092
15°	3078	3075	3078
20°	3055	3051	3055
25°	3027	3016	3024
30°	2990	2990	2978
35°	2961	2944	2952
40°	2907	2889	2907
45°	2863	2834	2834
50°	2814	2766	2771
55°	2699	2652	2676
60°	2562	2500	2541
65°	2375	2278	2375
70°	2083	1983	2073
75°	1707	1588	1668
80°	1164	1105	1184
85°	509	550	550



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	108.8	3.5
10°-20°	311.3	10.1
20°-30°	468.8	15.2
30°-40°	561.6	18.2
40°-50°	576.6	18.6
50°-60°	507.9	16.4
60°-70°	360.3	11.7
70°-80°	169.7	5.5
80°-90°	26.8	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°	888.9	28.8
0°-40°	1450.5	46.9
0°-60°	2535.0	82.0
0°-90°	3091.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3091.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1149	1149	1149	1149	1149	
5°	1147	1149	1144	1144	1144	109
15°	1105	1102	1104	1104	1105	311
25°	1020	1020	1016	1018	1018	469
35°	901	899	896	896	899	564
45°	752	750	745	748	745	580
55°	575	570	565	569	570	514
65°	373	363	358	367	373	367
75°	164	157	153	160	160	174
85°	16	16	18	18	18	27
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1149.4	1149.4	1149.4	1149.4	1149.4
2.5°	1143.1	1152.0	1150.7	1148.1	1148.1
5°	1146.9	1149.4	1144.3	1144.3	1144.3
7.5°	1135.4	1140.5	1136.7	1136.7	1141.8
10°	1130.3	1132.9	1129.1	1129.1	1131.6
12.5°	1118.9	1120.1	1117.6	1117.6	1118.9
15°	1104.9	1102.3	1103.6	1103.6	1104.9
17.5°	1078.1	1088.3	1084.5	1088.3	1085.8
20°	1066.7	1068.0	1065.4	1064.1	1066.7
22.5°	1043.8	1040.0	1043.8	1041.2	1038.7
25°	1019.6	1019.6	1015.8	1018.3	1018.3
27.5°	989.0	990.3	989.0	989.0	992.9
30°	962.3	962.3	962.3	961.0	958.5
32.5°	931.8	931.8	929.2	930.5	926.7
35°	901.2	898.7	896.1	896.1	898.7
37.5°	871.9	866.8	863.0	863.0	860.5
40°	827.4	829.9	822.3	823.6	827.4
42.5°	790.5	790.5	785.4	789.2	784.1
45°	752.3	749.7	744.6	748.5	744.6
47.5°	711.5	707.7	705.2	703.9	706.5
50°	672.1	663.2	660.6	661.9	661.9
52.5°	626.3	617.4	612.3	616.1	618.6
55°	575.3	570.3	565.2	569.0	570.3
57.5°	524.4	519.3	515.5	518.1	523.2
60°	476.1	468.4	464.6	469.7	472.2
62.5°	423.9	416.2	412.4	420.1	418.8
65°	373.0	362.8	357.7	366.6	373.0
67.5°	316.9	310.6	304.2	313.1	314.4
70°	264.8	254.6	252.0	263.5	263.5
72.5°	210.0	206.2	201.1	210.0	212.6
75°	164.2	156.6	152.7	160.4	160.4
77.5°	115.8	112.0	109.5	115.8	118.4
80°	75.1	71.3	71.3	73.8	76.4
82.5°	40.7	40.7	39.5	42.0	43.3
85°	16.5	16.5	17.8	17.8	17.8
87.5°	3.8	3.8	3.8	3.8	3.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)