

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: P302557

Luminaire Tested: **FSP-22-32-40-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: P302557  
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-22-32-40-CP187  
Description: 2x2 Fail Safe Flat Panel Clear Polycarbonate Lens .187"  
Light Source: (168) 4000 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

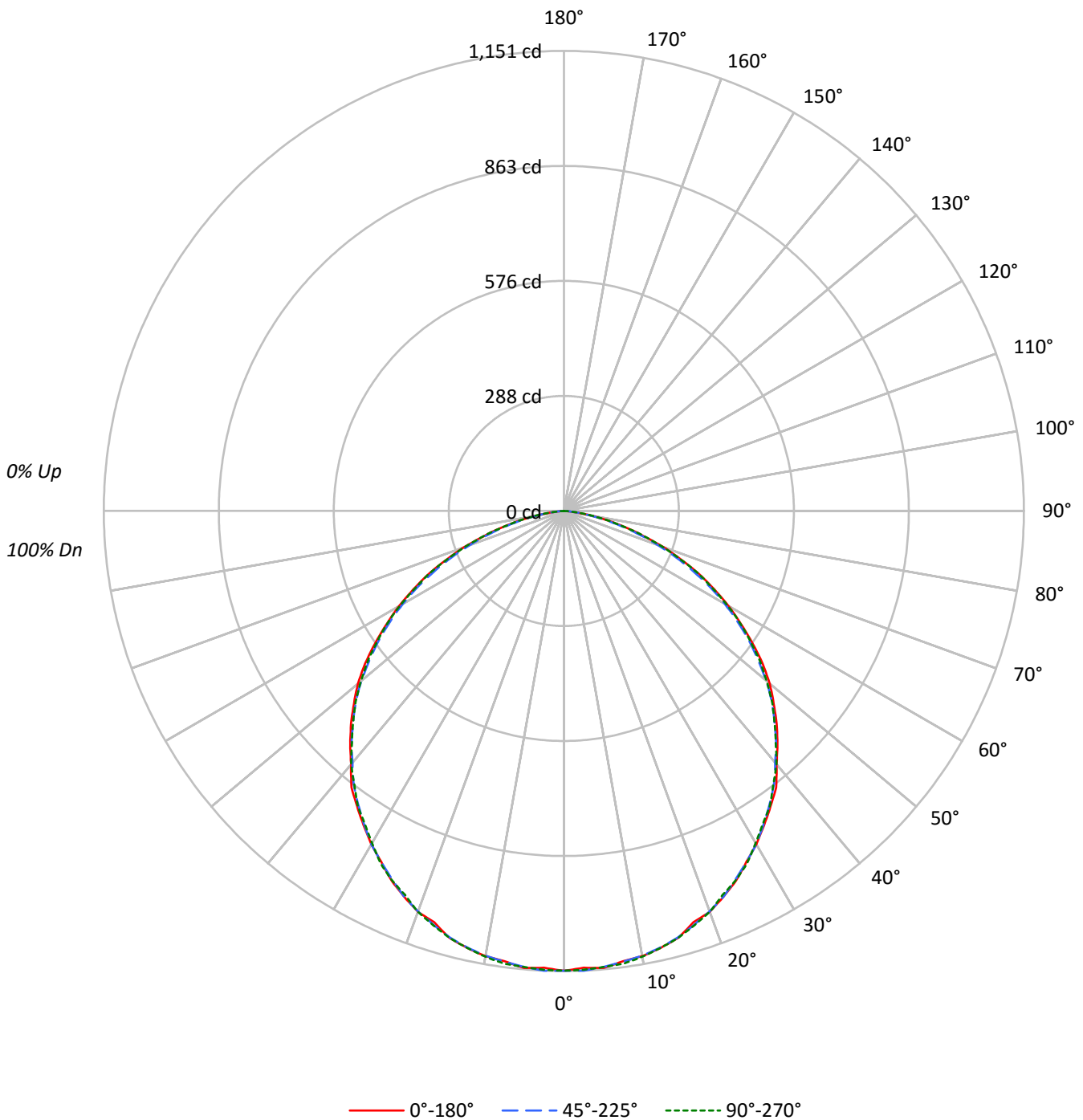
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3093.7 lumens  
Efficiency: N/A  
Efficacy: 105.9 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): 29.2  
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°	3095	3095	3095
5°	3100	3093	3093
10°	3090	3087	3094
15°	3080	3076	3080
20°	3056	3053	3056
25°	3029	3018	3025
30°	2992	2992	2980
35°	2962	2946	2954
40°	2908	2890	2908
45°	2864	2836	2836
50°	2815	2767	2773
55°	2701	2653	2677
60°	2564	2502	2543
65°	2376	2279	2376
70°	2084	1984	2075
75°	1708	1589	1669
80°	1164	1105	1184
85°	513	550	550



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	108.9	3.5
10°-20°	311.5	10.1
20°-30°	469.1	15.2
30°-40°	561.9	18.2
40°-50°	576.9	18.6
50°-60°	508.2	16.4
60°-70°	360.5	11.7
70°-80°	169.9	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°	889.5	28.8
0°-40°	1451.4	46.9
0°-60°	2536.5	82.0
0°-90°	3093.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3093.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1150	1150	1150	1150	1150	
5°	1148	1150	1145	1145	1145	109
15°	1106	1103	1104	1104	1106	311
25°	1020	1020	1016	1019	1019	469
35°	902	899	897	897	899	564
45°	753	750	745	749	745	580
55°	576	571	566	569	571	515
65°	373	363	358	367	373	367
75°	164	157	153	160	160	174
85°	17	17	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°	1150.1	1150.1	1150.1	1150.1	1150.1
2.5°	1143.8	1152.7	1151.4	1148.9	1148.9
5°	1147.6	1150.1	1145.0	1145.0	1145.0
7.5°	1136.1	1141.2	1137.4	1137.4	1142.5
10°	1131.0	1133.6	1129.8	1129.8	1132.3
12.5°	1119.6	1120.8	1118.3	1118.3	1119.6
15°	1105.6	1103.0	1104.3	1104.3	1105.6
17.5°	1078.8	1089.0	1085.2	1089.0	1086.5
20°	1067.3	1068.6	1066.1	1064.8	1067.3
22.5°	1044.4	1040.6	1044.4	1041.9	1039.3
25°	1020.2	1020.2	1016.4	1018.9	1018.9
27.5°	989.7	990.9	989.7	989.7	993.5
30°	962.9	962.9	962.9	961.6	959.1
32.5°	932.3	932.3	929.8	931.1	927.2
35°	901.8	899.2	896.7	896.7	899.2
37.5°	872.5	867.4	863.6	863.6	861.0
40°	827.9	830.4	822.8	824.1	827.9
42.5°	791.0	791.0	785.9	789.7	784.6
45°	752.7	750.2	745.1	748.9	745.1
47.5°	712.0	708.2	705.6	704.3	706.9
50°	672.5	663.6	661.0	662.3	662.3
52.5°	626.7	617.7	612.6	616.5	619.0
55°	575.7	570.6	565.5	569.3	570.6
57.5°	524.8	519.7	515.8	518.4	523.5
60°	476.4	468.7	464.9	470.0	472.5
62.5°	424.1	416.5	412.7	420.3	419.0
65°	373.2	363.0	357.9	366.8	373.2
67.5°	317.1	310.8	304.4	313.3	314.6
70°	264.9	254.7	252.2	263.7	263.7
72.5°	210.2	206.3	201.2	210.2	212.7
75°	164.3	156.7	152.8	160.5	160.5
77.5°	115.9	112.1	109.5	115.9	118.5
80°	75.1	71.3	71.3	73.9	76.4
82.5°	40.8	40.8	39.5	42.0	43.3
85°	16.6	16.6	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)