

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: P302647

Luminaire Tested: **FSP-24-64-50-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: P302647
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1905-304-17)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FSP-24-64-50-CP187
Description: 2x4 Fail Safe Flat Panel Clear Polycarbonate Lens .187"
Light Source: (308) 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

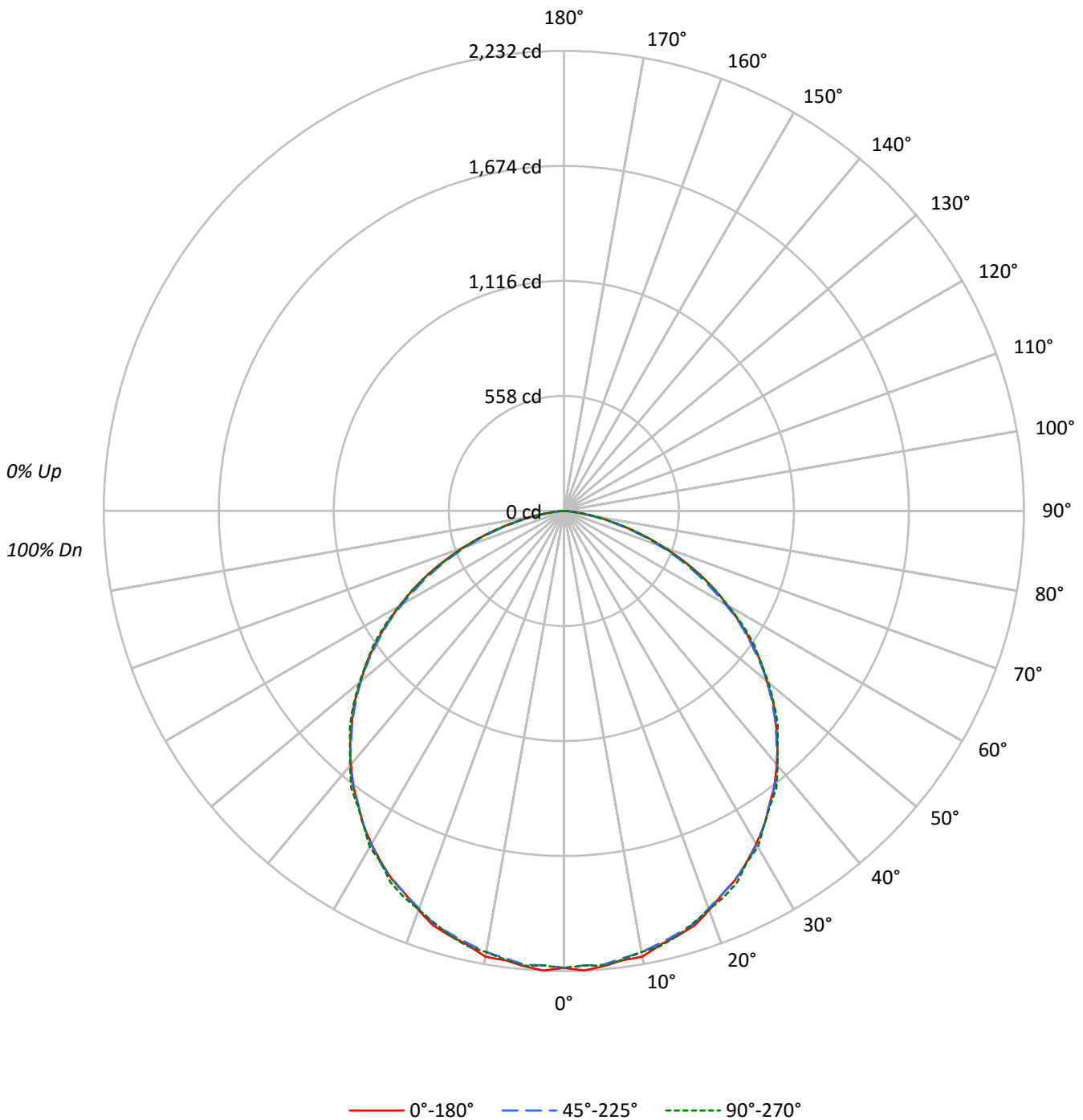
Lumens per Lamp: N/A
Luminaire Lumens: 6013.4 lumens
Efficiency: N/A
Efficacy: 97.8 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.25 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 61.5
Input Voltage (V): NR
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	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	73	71
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	66	63	60
4	83	72	63	56	81	70	62	56	68	61	55	66	59	55	63	58	54	52
5	77	64	55	49	75	63	55	48	61	54	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39
7	66	52	44	38	64	52	43	37	50	43	37	49	42	37	47	41	37	35
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2982	2982	2982
5°	2994	2984	2991
10°	3000	2969	2969
15°	2972	2959	2972
20°	2949	2939	2947
25°	2929	2923	2952
30°	2898	2904	2925
35°	2856	2856	2866
40°	2822	2829	2832
45°	2766	2763	2791
50°	2691	2691	2711
55°	2600	2582	2635
60°	2469	2434	2479
65°	2308	2236	2290
70°	2043	1954	2043
75°	1679	1570	1659
80°	1156	1097	1185
85°	554	525	554



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	209.7	3.5
10°-20°	600.7	10.0
20°-30°	908.6	15.1
30°-40°	1091.4	18.1
40°-50°	1121.1	18.6
50°-60°	989.1	16.4
60°-70°	704.0	11.7
70°-80°	334.9	5.6
80°-90°	54.0	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°	1719.0	28.6
0°-40°	2810.3	46.7
0°-60°	4920.5	81.8
0°-90°	6013.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6013.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2217	2217	2217	2217	2217	
5°	2217	2215	2209	2203	2215	211
15°	2134	2128	2124	2132	2134	603
25°	1973	1969	1969	1973	1988	908
35°	1739	1741	1739	1756	1745	1090
45°	1454	1452	1452	1461	1467	1122
55°	1108	1110	1101	1108	1123	991
65°	725	719	702	708	719	714
75°	323	315	302	308	319	345
85°	36	34	34	36	36	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2216.6	2216.6	2216.6	2216.6	2216.6
2.5°	2231.7	2214.7	2207.1	2203.3	2207.1
5°	2216.6	2214.7	2209.0	2203.3	2214.7
7.5°	2197.7	2193.9	2188.2	2184.5	2193.9
10°	2195.8	2180.7	2173.1	2175.0	2173.1
12.5°	2156.1	2158.0	2148.6	2152.4	2161.8
15°	2133.5	2127.8	2124.0	2131.6	2133.5
17.5°	2108.9	2107.1	2099.5	2088.2	2093.8
20°	2059.9	2058.0	2052.3	2061.7	2058.0
22.5°	2010.8	2022.1	2010.8	2024.0	2027.8
25°	1973.0	1969.2	1969.2	1973.0	1988.1
27.5°	1920.1	1914.5	1925.8	1916.4	1922.0
30°	1865.4	1859.7	1869.2	1869.2	1882.4
32.5°	1808.7	1803.1	1808.7	1805.0	1806.9
35°	1738.9	1740.8	1738.9	1755.9	1744.6
37.5°	1678.5	1674.7	1680.4	1680.4	1693.6
40°	1606.7	1606.7	1610.5	1606.7	1612.4
42.5°	1535.0	1523.6	1527.4	1533.1	1535.0
45°	1453.8	1451.9	1451.9	1461.3	1467.0
47.5°	1378.3	1370.7	1368.8	1372.6	1382.0
50°	1285.8	1285.8	1285.8	1291.4	1295.2
52.5°	1206.5	1200.8	1195.1	1198.9	1202.7
55°	1108.3	1110.2	1100.7	1108.3	1123.4
57.5°	1017.7	1015.8	1010.1	1010.1	1025.2
60°	917.6	917.6	904.4	913.8	921.4
62.5°	823.2	821.3	802.4	808.1	825.1
65°	725.0	719.3	702.4	708.0	719.3
67.5°	621.2	615.5	600.4	604.2	613.6
70°	519.2	515.4	496.6	502.2	519.2
72.5°	419.1	411.6	400.3	402.2	413.5
75°	322.9	315.3	302.1	307.8	319.1
77.5°	232.2	228.5	219.0	220.9	232.2
80°	149.2	147.3	141.6	145.4	152.9
82.5°	86.8	83.1	77.4	81.2	85.0
85°	35.9	34.0	34.0	35.9	35.9
87.5°	7.6	7.6	9.4	9.4	9.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)