

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: P302635

Luminaire Tested: **FSP-24-64-35-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: P302635
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-24-64-35-CP187
Description: 2x4 Fail Safe Flat Panel Clear Polycarbonate Lens .187"
Light Source: (350) 3500 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

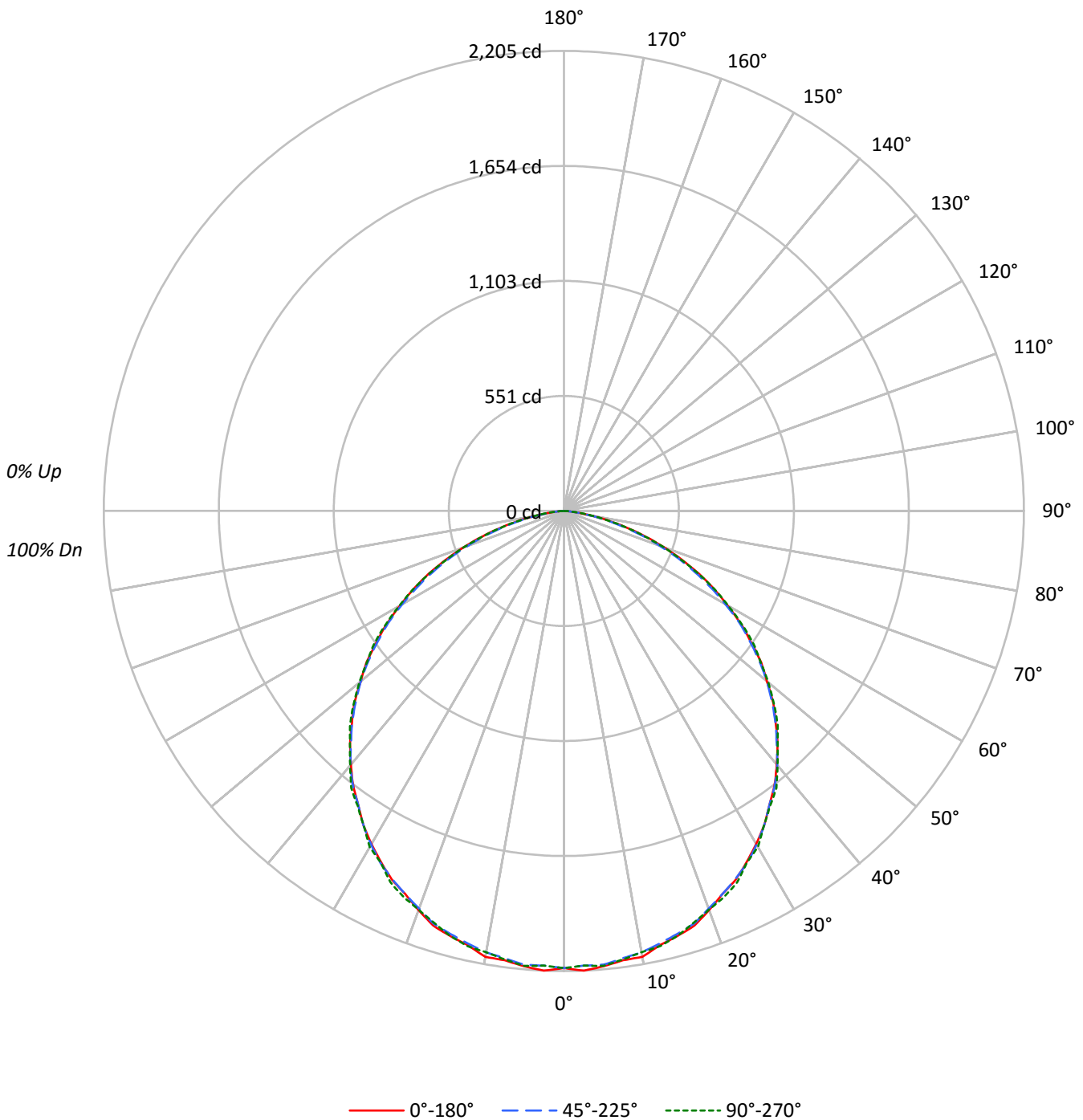
Lumens per Lamp: N/A
Luminaire Lumens: 5942.1 lumens
Efficiency: N/A
Efficacy: 98.5 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.25 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 60.3
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°	2947	2947	2947
5°	2958	2948	2956
10°	2964	2934	2934
15°	2937	2924	2937
20°	2914	2904	2912
25°	2894	2889	2916
30°	2864	2870	2890
35°	2822	2822	2832
40°	2789	2795	2798
45°	2734	2730	2758
50°	2659	2659	2679
55°	2569	2552	2604
60°	2440	2405	2450
65°	2281	2209	2263
70°	2019	1930	2019
75°	1658	1552	1639
80°	1142	1084	1171
85°	546	519	546



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	207.2	3.5
10°-20°	593.6	10.0
20°-30°	897.8	15.1
30°-40°	1078.4	18.1
40°-50°	1107.8	18.6
50°-60°	977.3	16.4
60°-70°	695.7	11.7
70°-80°	330.9	5.6
80°-90°	53.4	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°	1698.6	28.6
0°-40°	2777.0	46.7
0°-60°	4862.1	81.8
0°-90°	5942.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5942.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2190	2190	2190	2190	2190	
5°	2190	2188	2183	2177	2188	208
15°	2108	2103	2099	2106	2108	595
25°	1950	1946	1946	1950	1964	897
35°	1718	1720	1718	1735	1724	1077
45°	1437	1435	1435	1444	1450	1109
55°	1095	1097	1088	1095	1110	980
65°	716	711	694	700	711	706
75°	319	312	298	304	315	341
85°	35	34	34	35	35	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2190.3	2190.3	2190.3	2190.3	2190.3
2.5°	2205.2	2188.4	2181.0	2177.2	2181.0
5°	2190.3	2188.4	2182.8	2177.2	2188.4
7.5°	2171.6	2167.9	2162.3	2158.6	2167.9
10°	2169.8	2154.8	2147.4	2149.2	2147.4
12.5°	2130.6	2132.5	2123.1	2126.9	2136.2
15°	2108.2	2102.6	2098.9	2106.3	2108.2
17.5°	2083.9	2082.1	2074.6	2063.4	2069.0
20°	2035.4	2033.6	2028.0	2037.3	2033.6
22.5°	1986.9	1998.1	1986.9	2000.0	2003.7
25°	1949.6	1945.9	1945.9	1949.6	1964.5
27.5°	1897.4	1891.8	1903.0	1893.6	1899.2
30°	1843.3	1837.7	1847.0	1847.0	1860.1
32.5°	1787.3	1781.7	1787.3	1783.6	1785.4
35°	1718.3	1720.1	1718.3	1735.1	1723.9
37.5°	1658.6	1654.8	1660.4	1660.4	1673.5
40°	1587.7	1587.7	1591.4	1587.7	1593.3
42.5°	1516.8	1505.6	1509.3	1514.9	1516.8
45°	1436.6	1434.7	1434.7	1444.0	1449.6
47.5°	1361.9	1354.5	1352.6	1356.3	1365.7
50°	1270.5	1270.5	1270.5	1276.1	1279.8
52.5°	1192.2	1186.6	1181.0	1184.7	1188.4
55°	1095.1	1097.0	1087.7	1095.1	1110.1
57.5°	1005.6	1003.7	998.1	998.1	1013.1
60°	906.7	906.7	893.7	903.0	910.4
62.5°	813.4	811.6	792.9	798.5	815.3
65°	716.4	710.8	694.0	699.6	710.8
67.5°	613.8	608.2	593.3	597.0	606.3
70°	513.1	509.3	490.7	496.3	513.1
72.5°	414.2	406.7	395.5	397.4	408.6
75°	319.0	311.6	298.5	304.1	315.3
77.5°	229.5	225.7	216.4	218.3	229.5
80°	147.4	145.5	139.9	143.7	151.1
82.5°	85.8	82.1	76.5	80.2	84.0
85°	35.4	33.6	33.6	35.4	35.4
87.5°	7.5	7.5	9.3	9.3	9.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)