

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: P302636

Luminaire Tested: **FSP-24-64-35-CP250**

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: P302636
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1905-304-18)
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-CP250
Description: 2x4 Fail Safe Flat Panel Clear Polycarbonate Lens .25"
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

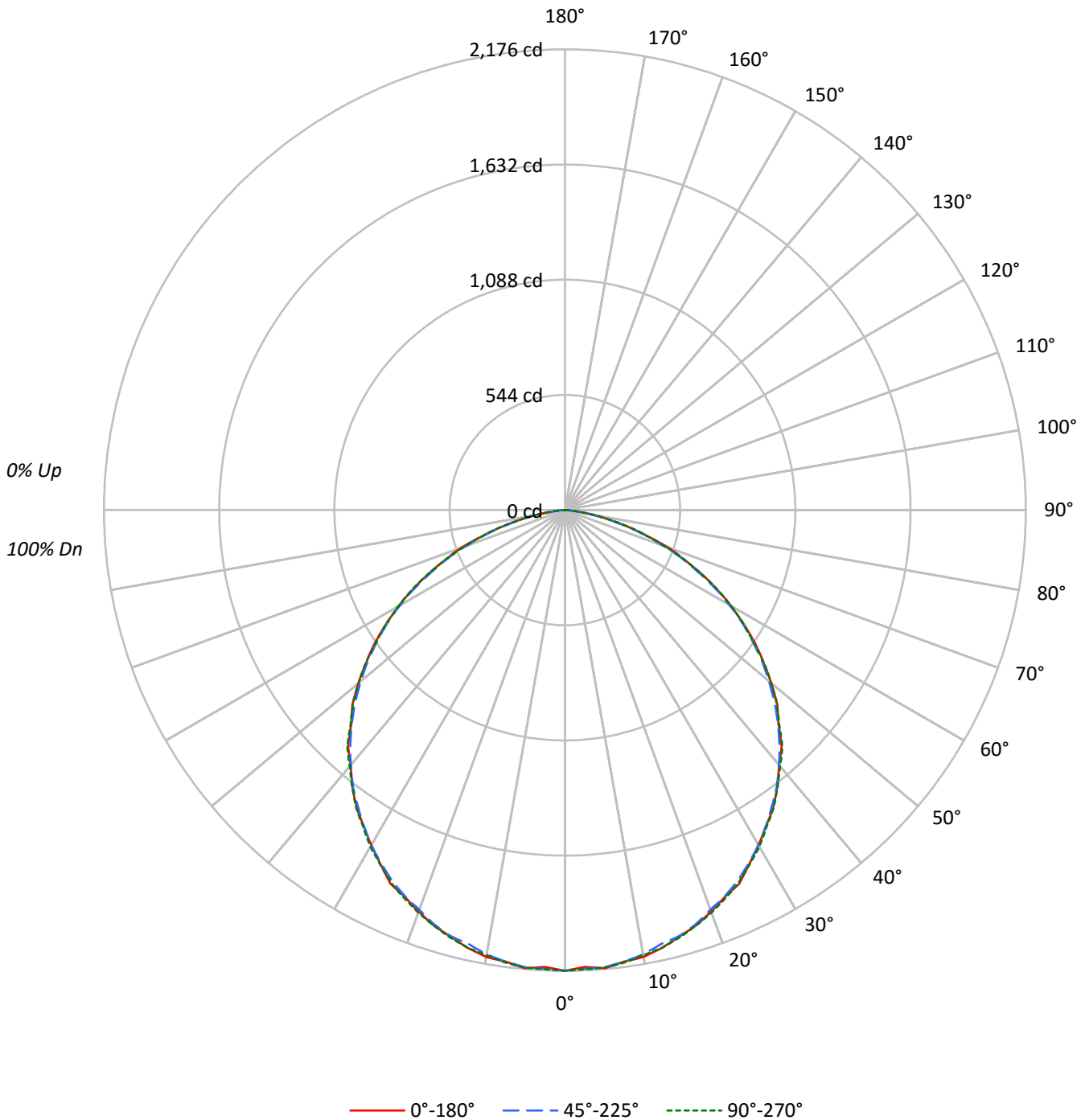
Lumens per Lamp: N/A
Luminaire Lumens: 5893.2 lumens
Efficiency: N/A
Efficacy: 97.7 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.25 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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	74	71
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	66	63	60
4	83	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	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	35	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°	2928	2928	2928
5°	2934	2927	2929
10°	2928	2911	2916
15°	2904	2902	2912
20°	2889	2876	2897
25°	2890	2866	2882
30°	2839	2839	2853
35°	2816	2801	2822
40°	2763	2763	2775
45°	2713	2706	2723
50°	2665	2631	2661
55°	2569	2539	2552
60°	2439	2414	2439
65°	2261	2215	2255
70°	2051	1950	2000
75°	1643	1577	1671
80°	1154	1083	1168
85°	560	505	560



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.8	3.5
10°-20°	588.7	10.0
20°-30°	891.0	15.1
30°-40°	1069.2	18.1
40°-50°	1100.7	18.7
50°-60°	969.4	16.4
60°-70°	689.3	11.7
70°-80°	327.0	5.5
80°-90°	52.1	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°	1685.5	28.6
0°-40°	2754.7	46.7
0°-60°	4824.8	81.9
0°-90°	5893.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5893.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2176	2176	2176	2176	2176	
5°	2172	2169	2167	2172	2169	206
15°	2085	2087	2083	2085	2090	589
25°	1947	1940	1931	1934	1942	892
35°	1714	1713	1705	1711	1718	1070
45°	1426	1428	1422	1428	1431	1105
55°	1095	1081	1082	1088	1088	977
65°	710	678	696	699	708	702
75°	316	289	303	309	322	338
85°	36	31	33	34	36	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2175.8	2175.8	2175.8	2175.8	2175.8
2.5°	2159.5	2177.7	2168.6	2170.4	2170.4
5°	2172.2	2168.6	2166.8	2172.2	2168.6
7.5°	2150.4	2159.5	2150.4	2155.9	2155.9
10°	2143.1	2137.7	2130.4	2128.6	2134.1
12.5°	2117.7	2114.1	2099.6	2115.9	2117.7
15°	2085.0	2086.8	2083.2	2085.0	2090.5
17.5°	2057.8	2057.8	2052.3	2056.0	2057.8
20°	2017.8	2026.9	2008.7	2017.8	2023.3
22.5°	1976.1	1979.7	1974.2	1976.1	1983.3
25°	1947.0	1939.7	1930.6	1934.3	1941.5
27.5°	1885.2	1888.9	1879.8	1881.6	1887.1
30°	1827.1	1825.3	1827.1	1827.1	1836.2
32.5°	1769.0	1769.0	1767.2	1767.2	1772.6
35°	1714.5	1712.7	1705.4	1710.9	1718.2
37.5°	1647.3	1645.5	1643.7	1645.5	1649.1
40°	1572.9	1578.3	1572.9	1574.7	1580.1
42.5°	1514.7	1507.5	1498.4	1509.3	1520.2
45°	1425.7	1427.6	1422.1	1427.6	1431.2
47.5°	1360.4	1342.2	1342.2	1349.5	1356.7
50°	1273.2	1260.5	1256.8	1265.9	1271.4
52.5°	1182.4	1171.5	1173.3	1176.9	1184.2
55°	1095.2	1080.7	1082.5	1087.9	1087.9
57.5°	1000.7	982.6	995.3	997.1	998.9
60°	906.3	884.5	897.2	899.0	906.3
62.5°	808.2	781.0	801.0	802.8	813.7
65°	710.1	677.5	695.6	699.2	708.3
67.5°	608.4	581.2	601.2	595.7	606.6
70°	521.3	481.3	495.8	499.5	508.5
72.5°	408.7	381.4	403.2	401.4	408.7
75°	316.0	288.8	303.3	308.8	321.5
77.5°	223.4	205.2	217.9	223.4	227.0
80°	148.9	134.4	139.8	145.3	150.7
82.5°	85.4	74.5	79.9	79.9	81.7
85°	36.3	30.9	32.7	34.5	36.3
87.5°	9.1	7.3	7.3	7.3	7.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)