

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: P302641

Luminaire Tested: **FSP-24-64-40-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: P302641
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-24-64-40-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

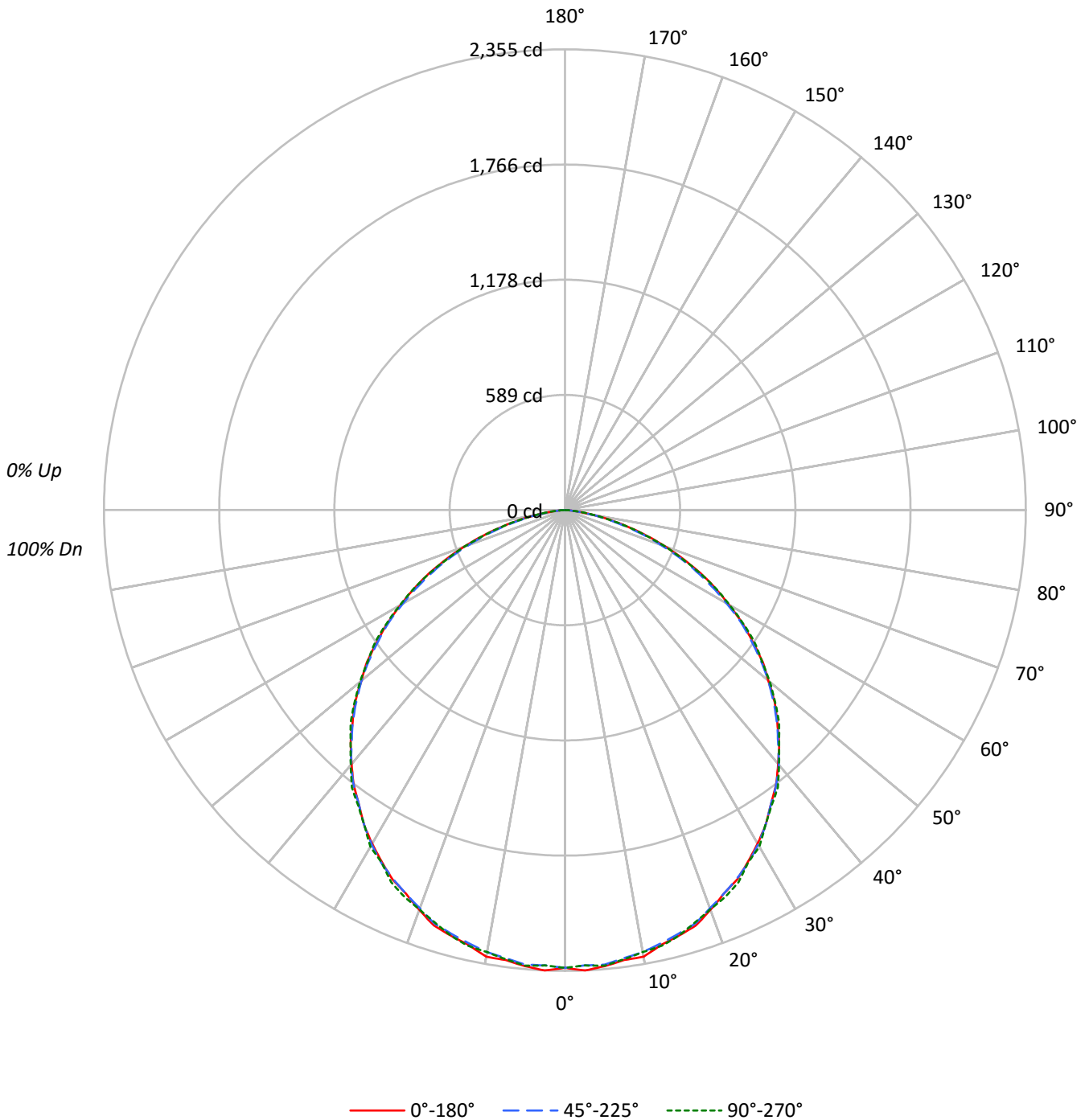
Lumens per Lamp: N/A
Luminaire Lumens: 6346.9 lumens
Efficiency: N/A
Efficacy: 102.0 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.25 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 62.2
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°	3148	3148	3148
5°	3160	3149	3157
10°	3166	3134	3134
15°	3137	3123	3137
20°	3113	3102	3110
25°	3091	3086	3115
30°	3059	3065	3087
35°	3015	3015	3024
40°	2979	2986	2989
45°	2920	2916	2946
50°	2841	2841	2861
55°	2744	2725	2781
60°	2606	2569	2617
65°	2436	2360	2417
70°	2156	2062	2156
75°	1772	1657	1751
80°	1220	1158	1251
85°	585	554	585



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	221.3	3.5
10°-20°	634.1	10.0
20°-30°	958.9	15.1
30°-40°	1151.9	18.1
40°-50°	1183.2	18.6
50°-60°	1043.9	16.4
60°-70°	743.1	11.7
70°-80°	353.5	5.6
80°-90°	57.0	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°	1814.3	28.6
0°-40°	2966.1	46.7
0°-60°	5193.3	81.8
0°-90°	6346.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6346.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2340	2340	2340	2340	2340	
5°	2340	2338	2332	2326	2338	222
15°	2252	2246	2242	2250	2252	636
25°	2082	2078	2078	2082	2098	958
35°	1835	1837	1835	1853	1841	1151
45°	1534	1532	1532	1542	1548	1184
55°	1170	1172	1162	1170	1186	1046
65°	765	759	741	747	759	754
75°	341	333	319	325	337	364
85°	38	36	36	38	38	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2339.5	2339.5	2339.5	2339.5	2339.5
2.5°	2355.4	2337.5	2329.5	2325.5	2329.5
5°	2339.5	2337.5	2331.5	2325.5	2337.5
7.5°	2319.6	2315.6	2309.6	2305.6	2315.6
10°	2317.6	2301.6	2293.7	2295.6	2293.7
12.5°	2275.7	2277.7	2267.8	2271.7	2281.7
15°	2251.8	2245.8	2241.8	2249.8	2251.8
17.5°	2225.9	2223.9	2215.9	2204.0	2210.0
20°	2174.1	2172.1	2166.1	2176.1	2172.1
22.5°	2122.3	2134.2	2122.3	2136.2	2140.2
25°	2082.4	2078.4	2078.4	2082.4	2098.4
27.5°	2026.6	2020.6	2032.6	2022.6	2028.6
30°	1968.8	1962.9	1972.8	1972.8	1986.8
32.5°	1909.1	1903.1	1909.1	1905.1	1907.1
35°	1835.3	1837.3	1835.3	1853.3	1841.3
37.5°	1771.6	1767.6	1773.5	1773.5	1787.5
40°	1695.8	1695.8	1699.8	1695.8	1701.8
42.5°	1620.1	1608.2	1612.1	1618.1	1620.1
45°	1534.4	1532.4	1532.4	1542.4	1548.4
47.5°	1454.7	1446.7	1444.7	1448.7	1458.7
50°	1357.1	1357.1	1357.1	1363.0	1367.0
52.5°	1273.4	1267.4	1261.4	1265.4	1269.4
55°	1169.7	1171.7	1161.8	1169.7	1185.7
57.5°	1074.1	1072.1	1066.1	1066.1	1082.1
60°	968.5	968.5	954.5	964.5	972.5
62.5°	868.8	866.8	846.9	852.9	870.8
65°	765.2	759.2	741.3	747.3	759.2
67.5°	655.6	649.6	633.7	637.7	647.6
70°	548.0	544.0	524.1	530.1	548.0
72.5°	442.4	434.4	422.5	424.5	436.4
75°	340.8	332.8	318.8	324.8	336.8
77.5°	245.1	241.1	231.2	233.2	245.1
80°	157.4	155.4	149.5	153.4	161.4
82.5°	91.7	87.7	81.7	85.7	89.7
85°	37.9	35.9	35.9	37.9	37.9
87.5°	8.0	8.0	10.0	10.0	10.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)