

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: P302527

Luminaire Tested: **FSP-22-21-35-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: P302527
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-22-21-35-CP187
Description: 2x2 Fail Safe Flat Panel Clear Polycarbonate Lens .187"
Light Source: (126) 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

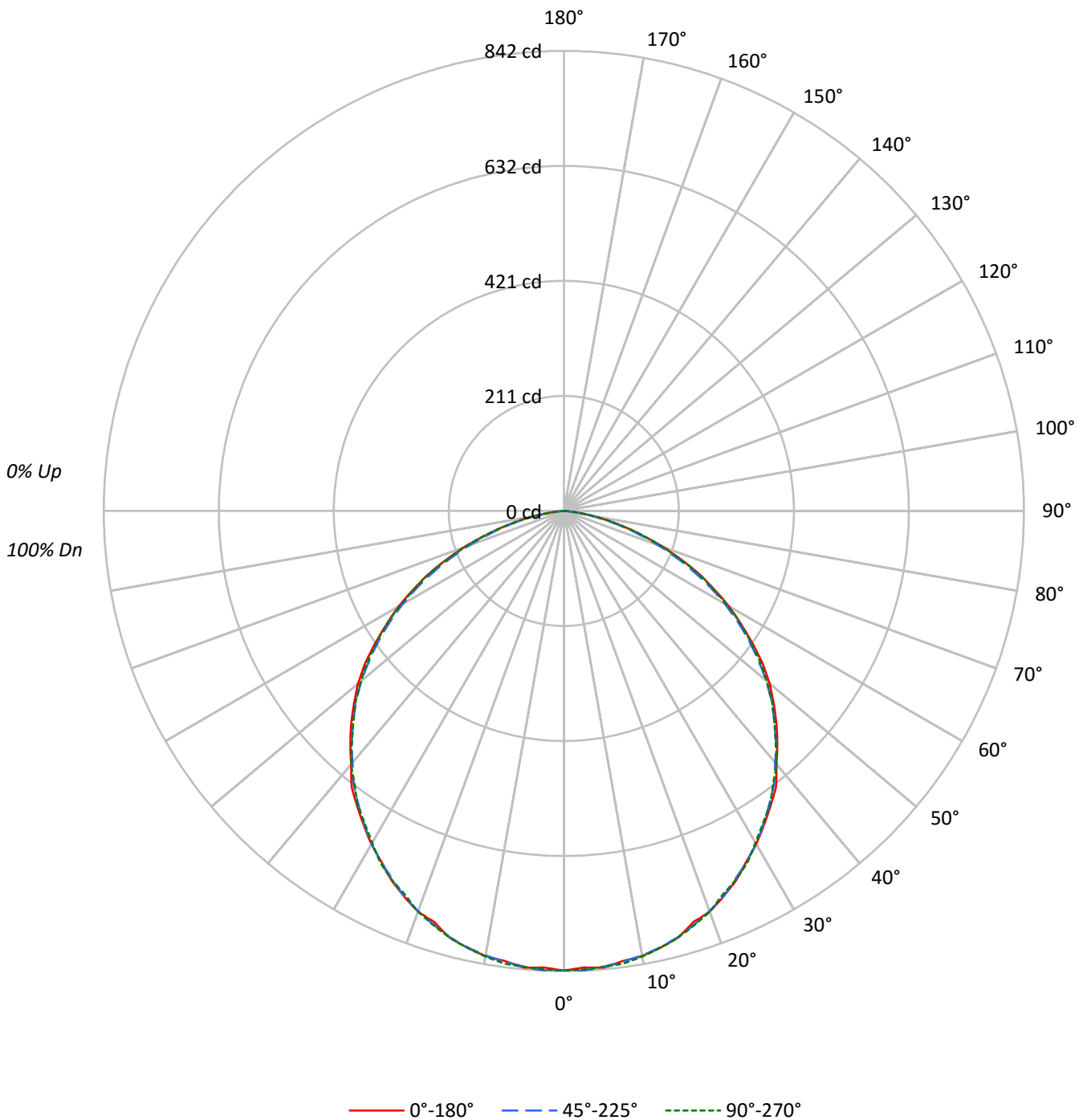
Lumens per Lamp: N/A
Luminaire Lumens: 2262.0 lumens
Efficiency: N/A
Efficacy: 109.3 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.36
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 20.7
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



TEST NUMBER: P302527
CATALOG NUMBER: FSP-22-21-35-CP187

Luminous Intensity Polar Plot





TEST NUMBER: P302527

CATALOG NUMBER: FSP-22-21-35-CP187

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°	2263	2263	2263
5°	2267	2261	2261
10°	2260	2257	2262
15°	2252	2249	2252
20°	2235	2232	2235
25°	2215	2207	2212
30°	2188	2188	2179
35°	2166	2154	2160
40°	2126	2113	2126
45°	2095	2073	2073
50°	2058	2023	2027
55°	1975	1940	1957
60°	1875	1829	1859
65°	1738	1666	1738
70°	1524	1451	1517
75°	1249	1162	1220
80°	851	809	866
85°	374	401	401



TEST NUMBER: P302527

CATALOG NUMBER: FSP-22-21-35-CP187

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.6	3.5
10°-20°	227.8	10.1
20°-30°	343.0	15.2
30°-40°	410.9	18.2
40°-50°	421.8	18.6
50°-60°	371.6	16.4
60°-70°	263.6	11.7
70°-80°	124.2	5.5
80°-90°	19.6	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°	650.4	28.8
0°-40°	1061.2	46.9
0°-60°	1854.6	82.0
0°-90°	2262.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2262.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	841	841	841	841	841	
5°	839	841	837	837	837	80
15°	808	806	807	807	808	227
25°	746	746	743	745	745	343
35°	659	658	656	656	658	412
45°	550	548	545	548	545	424
55°	421	417	414	416	417	376
65°	273	265	262	268	273	268
75°	120	114	112	117	117	127
85°	12	12	13	13	13	20
90°	0	0	0	0	0	



TEST NUMBER: P302527

CATALOG NUMBER: FSP-22-21-35-CP187

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	840.9	840.9	840.9	840.9	840.9
2.5°	836.3	842.8	841.9	840.0	840.0
5°	839.1	840.9	837.2	837.2	837.2
7.5°	830.7	834.4	831.6	831.6	835.4
10°	827.0	828.8	826.0	826.0	827.9
12.5°	818.6	819.5	817.7	817.7	818.6
15°	808.3	806.5	807.4	807.4	808.3
17.5°	788.8	796.2	793.4	796.2	794.4
20°	780.4	781.3	779.5	778.5	780.4
22.5°	763.6	760.9	763.6	761.8	759.9
25°	746.0	746.0	743.2	745.0	745.0
27.5°	723.6	724.5	723.6	723.6	726.4
30°	704.0	704.0	704.0	703.1	701.3
32.5°	681.7	681.7	679.8	680.8	678.0
35°	659.3	657.5	655.6	655.6	657.5
37.5°	637.9	634.2	631.4	631.4	629.5
40°	605.3	607.2	601.6	602.5	605.3
42.5°	578.3	578.3	574.6	577.4	573.7
45°	550.4	548.5	544.8	547.6	544.8
47.5°	520.6	517.8	515.9	515.0	516.9
50°	491.7	485.2	483.3	484.3	484.3
52.5°	458.2	451.7	447.9	450.7	452.6
55°	420.9	417.2	413.5	416.3	417.2
57.5°	383.7	380.0	377.2	379.0	382.8
60°	348.3	342.7	339.9	343.6	345.5
62.5°	310.1	304.5	301.7	307.3	306.4
65°	272.9	265.4	261.7	268.2	272.9
67.5°	231.9	227.2	222.6	229.1	230.0
70°	193.7	186.3	184.4	192.8	192.8
72.5°	153.7	150.9	147.1	153.7	155.5
75°	120.1	114.5	111.8	117.3	117.3
77.5°	84.7	82.0	80.1	84.7	86.6
80°	54.9	52.2	52.2	54.0	55.9
82.5°	29.8	29.8	28.9	30.7	31.7
85°	12.1	12.1	13.0	13.0	13.0
87.5°	2.8	2.8	2.8	2.8	2.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)