

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: P302522

Luminaire Tested: **FSP-22-21-30-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: P302522
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1905-304-12)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FSP-22-21-30-CP250
Description: 2x2 Fail Safe Flat Panel Clear Polycarbonate Lens .25"
Light Source: (126) 3000 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

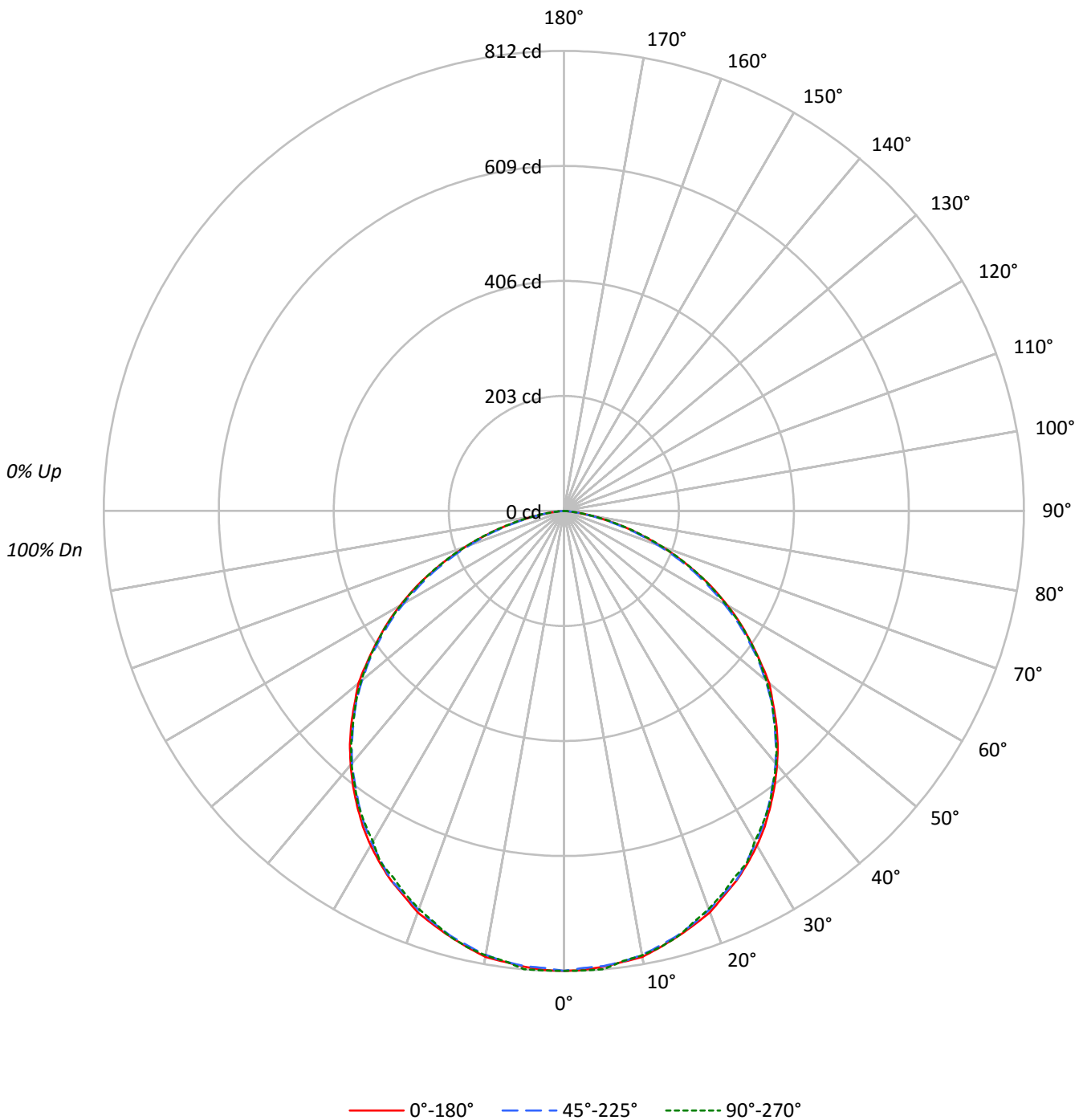
Lumens per Lamp: N/A
Luminaire Lumens: 2175.2 lumens
Efficiency: N/A
Efficacy: 105.1 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.24 / 1.35
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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



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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	87	81	77	83	79	75	80	77	74	72
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	71	62	56	68	61	56	66	60	55	64	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	43	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	28	52	40	33	27	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2184	2184	2184
5°	2180	2178	2193
10°	2184	2174	2176
15°	2166	2161	2166
20°	2159	2146	2141
25°	2139	2137	2118
30°	2118	2104	2093
35°	2088	2073	2079
40°	2055	2043	2049
45°	2017	1996	2000
50°	1981	1943	1954
55°	1889	1864	1885
60°	1793	1755	1784
65°	1650	1610	1656
70°	1449	1400	1456
75°	1174	1107	1193
80°	798	756	826
85°	361	333	361



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.7	3.5
10°-20°	219.1	10.1
20°-30°	330.5	15.2
30°-40°	395.9	18.2
40°-50°	406.4	18.7
50°-60°	357.3	16.4
60°-70°	252.6	11.6
70°-80°	118.2	5.4
80°-90°	18.5	0.8
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°	626.3	28.8
0°-40°	1022.3	47.0
0°-60°	1785.9	82.1
0°-90°	2175.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2175.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	812	812	812	812	812	
5°	807	808	806	807	812	77
15°	777	777	776	775	777	220
25°	720	719	720	715	713	332
35°	636	636	631	631	633	398
45°	530	528	525	526	526	409
55°	403	400	397	401	402	360
65°	259	256	253	256	260	257
75°	113	108	106	112	115	121
85°	12	12	11	13	12	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	811.7	811.7	811.7	811.7	811.7
2.5°	810.8	809.9	807.2	809.9	811.7
5°	807.2	808.1	806.3	807.2	811.7
7.5°	802.7	803.6	801.8	801.8	800.9
10°	799.1	799.1	795.5	795.5	796.4
12.5°	788.3	790.1	785.5	787.4	788.3
15°	777.4	777.4	775.6	774.7	777.4
17.5°	765.7	765.7	763.0	763.0	761.2
20°	753.9	752.1	749.4	746.7	747.6
22.5°	735.9	736.8	733.2	733.2	731.4
25°	720.5	718.7	719.6	715.1	713.3
27.5°	701.6	700.7	698.0	698.0	699.8
30°	681.7	679.0	677.2	675.4	673.6
32.5°	660.0	658.2	655.5	654.6	653.7
35°	635.7	635.7	631.1	631.1	633.0
37.5°	611.3	613.1	605.9	606.8	606.8
40°	585.1	586.0	581.5	582.4	583.3
42.5°	558.9	557.1	553.5	556.2	555.3
45°	530.0	528.2	524.6	525.5	525.5
47.5°	500.2	498.4	496.6	496.6	497.5
50°	473.1	467.7	464.1	465.0	466.8
52.5°	437.0	436.1	432.5	433.4	435.2
55°	402.7	400.0	397.3	400.9	401.8
57.5°	369.3	366.6	363.0	364.8	367.5
60°	333.2	328.7	326.0	328.7	331.4
62.5°	298.0	291.6	288.9	292.5	295.3
65°	259.1	255.5	252.8	256.4	260.0
67.5°	222.1	215.8	214.9	220.3	223.0
70°	184.2	177.9	177.9	182.4	185.1
72.5°	147.2	140.9	141.8	147.2	149.9
75°	112.9	108.4	106.5	112.0	114.7
77.5°	80.4	75.8	75.8	81.3	81.3
80°	51.5	48.8	48.8	52.4	53.3
82.5°	28.9	28.0	27.1	28.9	29.8
85°	11.7	11.7	10.8	12.6	11.7
87.5°	2.7	2.7	2.7	2.7	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)