

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: P302524

Luminaire Tested: **FSP-22-21-35-CA08**

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: P302524
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1905-304-8)
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-CA08
Description: 2x2 Fail Safe Flat Panel Clear Acrylic Lens .08"
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

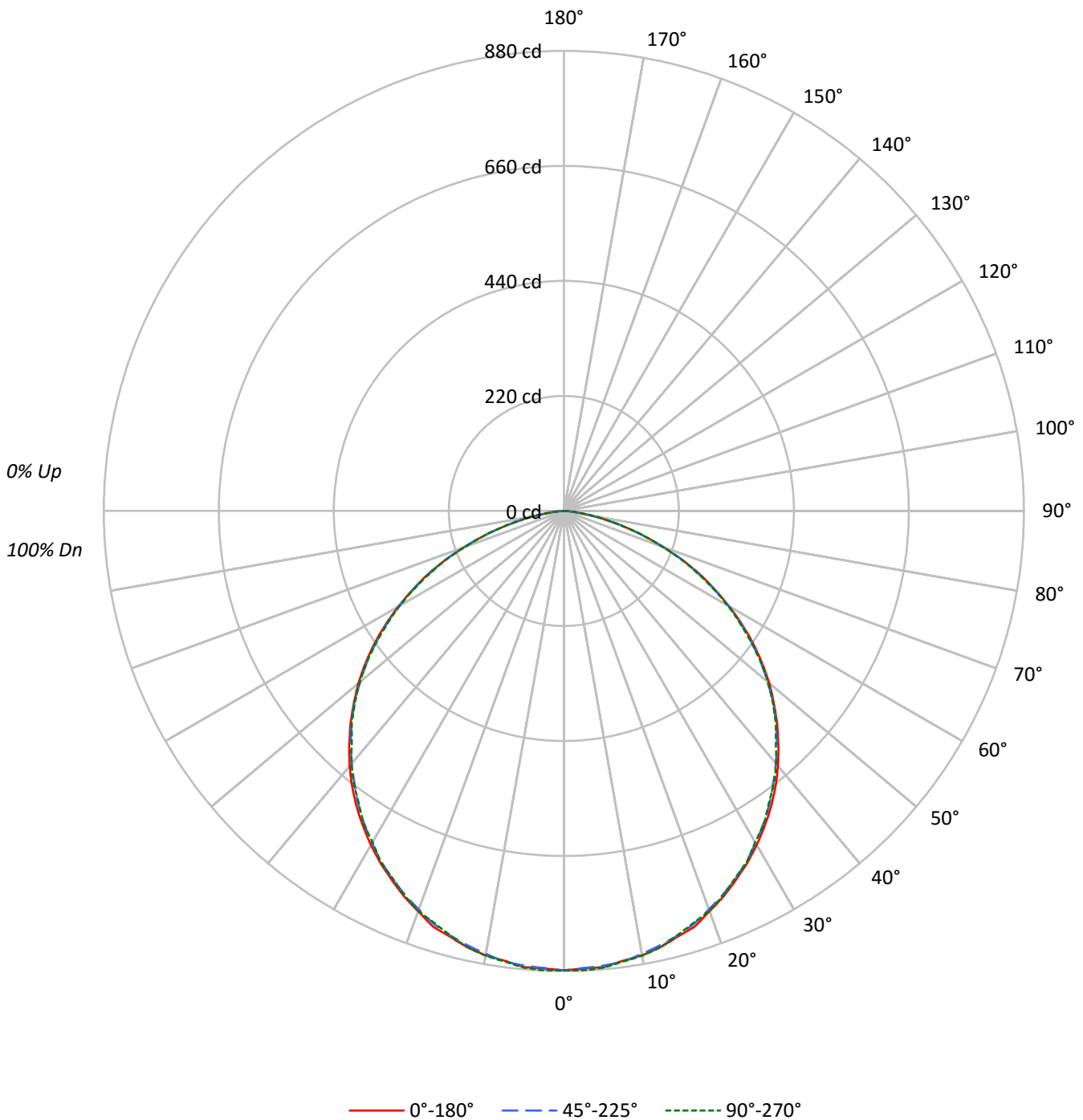
Lumens per Lamp: N/A
Luminaire Lumens: 2383.2 lumens
Efficiency: N/A
Efficacy: 115.1 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.24 / 1.36
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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



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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	95	98	95	92	94	92	90	91	89	87	85
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	76	73	71
3	91	81	73	66	89	79	72	66	76	70	65	73	68	63	71	66	62	60
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	52
5	77	64	55	49	75	63	55	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	42	69	57	48	42	55	47	42	53	47	41	52	46	41	39
7	66	52	44	37	64	51	43	37	50	42	37	48	42	37	47	41	37	35
8	61	48	39	33	60	47	39	33	46	38	33	44	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°	2364	2364	2364
5°	2366	2358	2368
10°	2358	2350	2360
15°	2347	2342	2340
20°	2333	2323	2331
25°	2312	2304	2301
30°	2293	2279	2273
35°	2270	2251	2245
40°	2238	2216	2219
45°	2196	2182	2182
50°	2149	2130	2133
55°	2074	2057	2053
60°	1966	1956	1951
65°	1831	1808	1802
70°	1593	1593	1586
75°	1308	1299	1299
80°	931	903	945
85°	485	485	485



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.0	3.5
10°-20°	237.3	10.0
20°-30°	358.1	15.0
30°-40°	430.0	18.0
40°-50°	443.3	18.6
50°-60°	392.6	16.5
60°-70°	281.2	11.8
70°-80°	134.3	5.6
80°-90°	23.4	1.0
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°	678.5	28.5
0°-40°	1108.4	46.5
0°-60°	1944.3	81.6
0°-90°	2383.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2383.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	879	879	879	879	879	
5°	876	873	873	874	877	83
15°	843	844	841	839	840	238
25°	779	778	776	776	775	359
35°	691	691	685	687	684	432
45°	577	577	573	572	573	445
55°	442	444	438	438	438	394
65°	288	286	284	283	283	283
75°	126	123	125	127	125	134
85°	16	17	16	16	16	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	878.6	878.6	878.6	878.6	878.6
2.5°	875.8	875.8	874.9	876.8	879.5
5°	875.8	873.1	873.1	874.0	876.8
7.5°	867.5	868.4	869.4	867.5	869.4
10°	862.9	861.0	860.1	862.0	863.8
12.5°	854.6	852.7	850.9	852.7	854.6
15°	842.6	843.5	840.7	838.9	839.8
17.5°	833.3	827.8	827.8	826.8	825.9
20°	814.8	813.0	811.1	812.0	813.9
22.5°	798.2	797.2	794.5	795.4	796.3
25°	778.7	777.8	776.0	776.0	775.0
27.5°	759.3	758.4	756.5	755.6	757.5
30°	738.0	739.0	733.4	733.4	731.6
32.5°	714.9	714.9	710.3	708.4	711.2
35°	690.9	690.9	685.3	687.2	683.5
37.5°	665.0	666.8	657.6	660.4	659.4
40°	637.2	635.4	630.8	636.3	631.7
42.5°	607.6	610.4	603.9	603.9	600.2
45°	577.1	577.1	573.4	572.5	573.4
47.5°	544.7	545.7	542.9	543.8	542.0
50°	513.3	512.4	508.7	507.7	509.6
52.5°	478.2	479.1	474.5	475.4	474.5
55°	442.1	443.9	438.4	438.4	437.5
57.5°	404.2	404.2	401.4	401.4	399.5
60°	365.3	368.1	363.5	363.5	362.5
62.5°	325.6	325.6	323.7	324.6	322.8
65°	287.6	285.8	283.9	283.0	283.0
67.5°	246.0	244.2	246.0	243.2	244.2
70°	202.5	203.5	202.5	202.5	201.6
72.5°	163.7	163.7	164.6	163.7	163.7
75°	125.8	123.0	124.9	126.7	124.9
77.5°	88.8	88.8	90.6	90.6	91.6
80°	60.1	58.3	58.3	60.1	61.0
82.5°	33.3	34.2	34.2	34.2	34.2
85°	15.7	16.6	15.7	15.7	15.7
87.5°	7.4	7.4	6.5	5.5	4.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)