

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: P302530

Luminaire Tested: **FSP-22-21-40-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: P302530
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-22-21-40-CA08
Description: 2x2 Fail Safe Flat Panel Clear Acrylic Lens .08"
Light Source: (126) 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

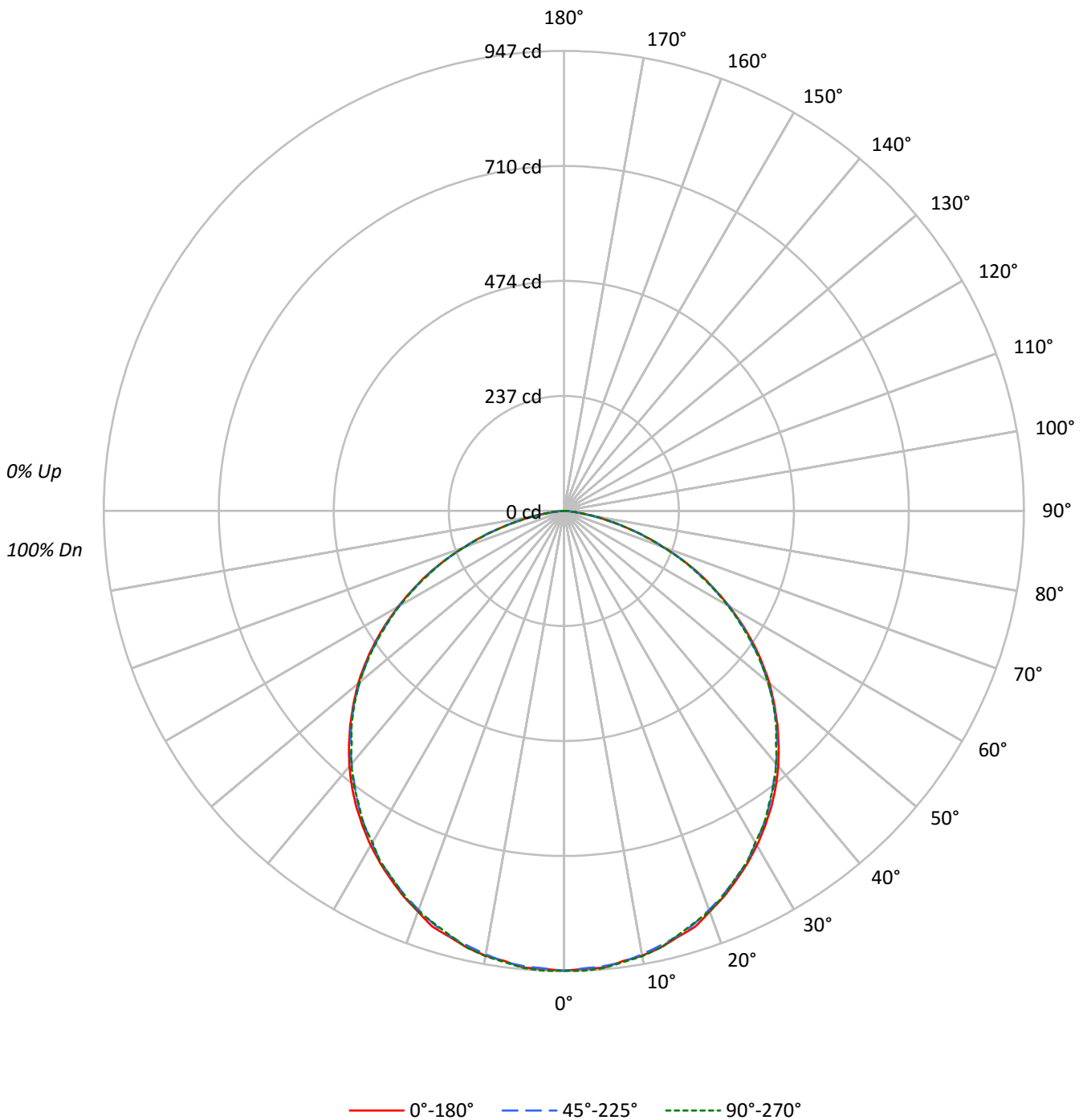
Lumens per Lamp: N/A
Luminaire Lumens: 2567.1 lumens
Efficiency: N/A
Efficacy: 124.6 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.24 / 1.36
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 20.6
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°	2547	2547	2547
5°	2548	2540	2551
10°	2540	2532	2543
15°	2528	2523	2520
20°	2513	2502	2511
25°	2491	2482	2479
30°	2470	2455	2449
35°	2445	2425	2418
40°	2411	2387	2390
45°	2366	2351	2351
50°	2315	2294	2298
55°	2234	2215	2211
60°	2118	2107	2102
65°	1973	1947	1941
70°	1717	1717	1709
75°	1409	1398	1398
80°	1004	973	1020
85°	522	522	522



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.4	3.5
10°-20°	255.6	10.0
20°-30°	385.7	15.0
30°-40°	463.2	18.0
40°-50°	477.5	18.6
50°-60°	422.9	16.5
60°-70°	302.9	11.8
70°-80°	144.7	5.6
80°-90°	25.2	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°	730.8	28.5
0°-40°	1194.0	46.5
0°-60°	2094.3	81.6
0°-90°	2567.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2567.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	946	946	946	946	946	
5°	943	940	940	941	944	89
15°	908	908	906	904	905	256
25°	839	838	836	836	835	387
35°	744	744	738	740	736	465
45°	622	622	618	617	618	479
55°	476	478	472	472	471	425
65°	310	308	306	305	305	304
75°	136	132	134	136	134	145
85°	17	18	17	17	17	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	946.4	946.4	946.4	946.4	946.4
2.5°	943.4	943.4	942.4	944.4	947.4
5°	943.4	940.4	940.4	941.4	944.4
7.5°	934.4	935.4	936.4	934.4	936.4
10°	929.5	927.5	926.5	928.5	930.5
12.5°	920.5	918.5	916.5	918.5	920.5
15°	907.6	908.5	905.6	903.6	904.6
17.5°	897.6	891.6	891.6	890.6	889.6
20°	877.7	875.7	873.7	874.7	876.7
22.5°	859.7	858.7	855.7	856.7	857.7
25°	838.8	837.8	835.8	835.8	834.8
27.5°	817.9	816.9	814.9	813.9	815.9
30°	795.0	796.0	790.0	790.0	788.0
32.5°	770.1	770.1	765.1	763.1	766.1
35°	744.2	744.2	738.2	740.2	736.2
37.5°	716.3	718.3	708.3	711.3	710.3
40°	686.4	684.4	679.4	685.4	680.4
42.5°	654.5	657.5	650.5	650.5	646.5
45°	621.6	621.6	617.7	616.7	617.7
47.5°	586.8	587.8	584.8	585.8	583.8
50°	552.9	551.9	547.9	546.9	548.9
52.5°	515.0	516.0	511.1	512.1	511.1
55°	476.2	478.2	472.2	472.2	471.2
57.5°	435.3	435.3	432.4	432.4	430.4
60°	393.5	396.5	391.5	391.5	390.5
62.5°	350.7	350.7	348.7	349.7	347.7
65°	309.8	307.8	305.8	304.8	304.8
67.5°	265.0	263.0	265.0	262.0	263.0
70°	218.2	219.2	218.2	218.2	217.2
72.5°	176.3	176.3	177.3	176.3	176.3
75°	135.5	132.5	134.5	136.5	134.5
77.5°	95.6	95.6	97.6	97.6	98.6
80°	64.8	62.8	62.8	64.8	65.8
82.5°	35.9	36.9	36.9	36.9	36.9
85°	16.9	17.9	16.9	16.9	16.9
87.5°	8.0	8.0	7.0	6.0	5.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)