

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: P308816

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-CP250-W2A-U-2700K**

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: P308816
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-33)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-39HE-UNV-L82765-CP250-W2A-U-2700K
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.250" POLYCARB SHEET
Light Source: (168) 3000K TUNABLE 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: 3021.0 lumens
Efficiency: N/A
Efficacy: 93.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

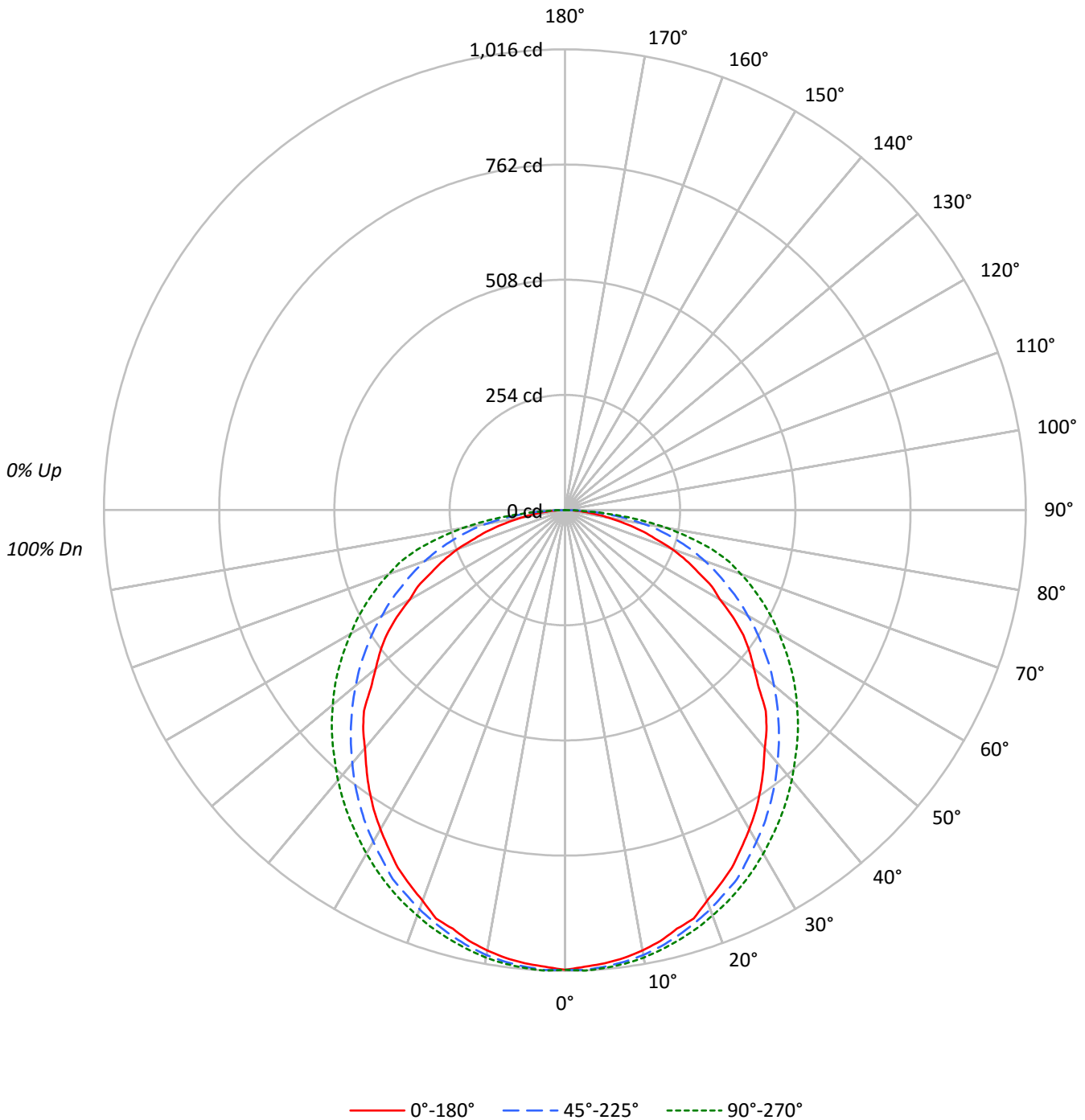
Input Watts (W): 32.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	98	94	105	100	96	92	96	93	90	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	51	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2728	2728	2728
5°	2710	2730	2738
10°	2695	2722	2738
15°	2662	2703	2731
20°	2625	2683	2725
25°	2584	2666	2722
30°	2525	2624	2718
35°	2470	2594	2722
40°	2408	2560	2733
45°	2383	2537	2757
50°	2276	2518	2797
55°	2252	2510	2856
60°	2124	2506	2934
65°	2062	2523	3066
70°	1980	2582	3253
75°	1804	2661	3503
80°	1547	2755	3541
85°	1250	2634	3035



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.9	3.2
10°-20°	273.6	9.1
20°-30°	411.8	13.6
30°-40°	494.2	16.4
40°-50°	516.6	17.1
50°-60°	481.4	15.9
60°-70°	394.8	13.1
70°-80°	266.0	8.8
80°-90°	86.6	2.9
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°	781.3	25.9
0°-40°	1275.5	42.2
0°-60°	2273.5	75.3
0°-90°	3021.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3021.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1014	1014	1014	1014	1014	
5°	1003	1006	1011	1012	1014	95
15°	956	962	970	979	980	270
25°	870	876	898	911	917	400
35°	752	762	790	817	828	470
45°	626	630	667	707	724	478
55°	480	489	535	586	609	425
65°	324	338	396	454	482	322
75°	174	192	256	314	337	182
85°	40	58	85	100	98	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1013.6	1013.6	1013.6	1013.6	1013.6
2.5°	1007.8	1010.7	1015.0	1016.5	1016.5
5°	1003.4	1006.3	1010.7	1012.1	1013.6
7.5°	996.2	999.1	1004.9	1007.8	1009.2
10°	986.1	989.0	996.2	1000.6	1002.0
12.5°	973.1	976.0	984.7	990.4	991.9
15°	955.7	961.5	970.2	978.9	980.3
17.5°	944.2	942.7	954.3	964.4	967.3
20°	916.7	923.9	936.9	948.5	951.4
22.5°	893.6	899.3	916.7	929.7	935.5
25°	870.4	876.2	897.9	910.9	916.7
27.5°	841.5	850.2	870.4	889.2	896.5
30°	812.6	821.3	844.4	866.1	874.8
32.5°	783.7	793.8	818.4	841.5	851.6
35°	751.9	762.0	789.5	816.9	828.5
37.5°	718.6	731.6	760.5	790.9	803.9
40°	685.4	698.4	728.7	763.4	777.9
42.5°	657.9	663.7	698.4	736.0	750.4
45°	626.1	630.4	666.6	707.0	724.4
47.5°	579.8	595.7	634.7	679.6	696.9
50°	543.7	561.0	601.5	649.2	668.0
52.5°	513.3	524.9	569.7	617.4	639.1
55°	480.0	488.7	535.0	585.6	608.7
57.5°	439.6	455.5	501.7	553.8	576.9
60°	394.7	415.0	465.6	522.0	545.1
62.5°	365.8	377.4	432.3	488.7	514.7
65°	323.9	338.3	396.2	454.0	481.5
67.5°	289.2	303.6	362.9	420.8	448.2
70°	251.6	266.0	328.2	386.1	413.5
72.5°	208.2	228.5	293.5	351.4	380.3
75°	173.5	192.3	255.9	313.8	336.9
77.5°	134.5	159.0	218.3	266.0	283.4
80°	99.8	124.3	177.8	212.5	228.5
82.5°	68.0	92.5	133.0	159.0	167.7
85°	40.5	57.8	85.3	99.8	98.3
87.5°	18.8	24.6	34.7	34.7	33.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)