

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: P308773

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-CP250-W2A-U-3500K**

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: P308773
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: 22FCZ2-34HE-UNV-L82765-CP250-W2A-U-3500K
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: 2805.0 lumens
Efficiency: N/A
Efficacy: 101.3 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

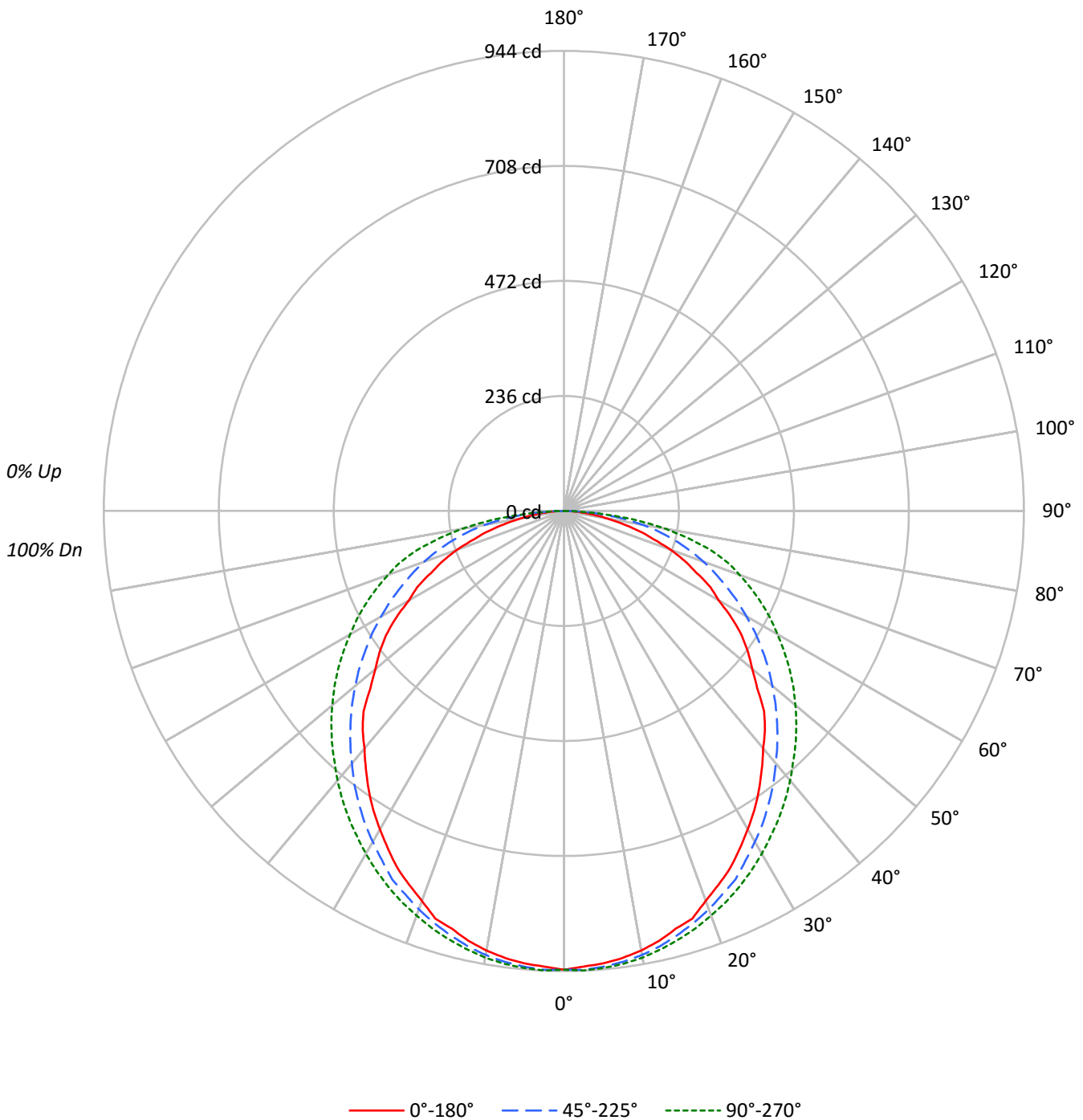
Input Watts (W): 27.7
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2532	2532	2532
5°	2517	2535	2542
10°	2502	2528	2542
15°	2472	2510	2536
20°	2438	2491	2530
25°	2400	2475	2527
30°	2344	2436	2524
35°	2293	2408	2527
40°	2236	2377	2537
45°	2212	2355	2560
50°	2113	2338	2596
55°	2091	2330	2652
60°	1972	2327	2724
65°	1915	2342	2847
70°	1838	2398	3021
75°	1675	2470	3252
80°	1435	2559	3287
85°	1161	2445	2819



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.1	3.2
10°-20°	254.0	9.1
20°-30°	382.3	13.6
30°-40°	458.9	16.4
40°-50°	479.6	17.1
50°-60°	447.0	15.9
60°-70°	366.6	13.1
70°-80°	247.0	8.8
80°-90°	80.5	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°	725.4	25.9
0°-40°	1184.3	42.2
0°-60°	2110.9	75.3
0°-90°	2805.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2805.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	941	941	941	941	941	
5°	932	934	938	940	941	88
15°	887	893	901	909	910	251
25°	808	814	834	846	851	372
35°	698	708	733	758	769	436
45°	581	585	619	656	673	444
55°	446	454	497	544	565	395
65°	301	314	368	422	447	299
75°	161	179	238	291	313	169
85°	38	54	79	93	91	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	941.1	941.1	941.1	941.1	941.1
2.5°	935.7	938.4	942.4	943.8	943.8
5°	931.7	934.4	938.4	939.8	941.1
7.5°	925.0	927.7	933.0	935.7	937.1
10°	915.6	918.3	925.0	929.0	930.4
12.5°	903.5	906.2	914.3	919.6	921.0
15°	887.4	892.8	900.8	908.9	910.2
17.5°	876.7	875.3	886.1	895.5	898.1
20°	851.2	857.9	869.9	880.7	883.4
22.5°	829.7	835.0	851.2	863.2	868.6
25°	808.2	813.6	833.7	845.8	851.2
27.5°	781.3	789.4	808.2	825.6	832.4
30°	754.5	762.5	784.0	804.2	812.2
32.5°	727.6	737.0	759.9	781.3	790.7
35°	698.1	707.5	733.0	758.5	769.3
37.5°	667.2	679.3	706.2	734.4	746.4
40°	636.4	648.4	676.6	708.8	722.3
42.5°	610.8	616.2	648.4	683.3	696.8
45°	581.3	585.3	618.9	656.5	672.6
47.5°	538.3	553.1	589.4	631.0	647.1
50°	504.8	520.9	558.5	602.8	620.2
52.5°	476.6	487.3	528.9	573.3	593.4
55°	445.7	453.8	496.7	543.7	565.2
57.5°	408.1	422.9	465.9	514.2	535.7
60°	366.5	385.3	432.3	484.6	506.1
62.5°	339.7	350.4	401.4	453.8	477.9
65°	300.7	314.1	367.8	421.5	447.1
67.5°	268.5	281.9	337.0	390.7	416.2
70°	233.6	247.0	304.8	358.5	384.0
72.5°	193.3	212.1	272.5	326.2	353.1
75°	161.1	178.6	237.6	291.3	312.8
77.5°	124.9	147.7	202.7	247.0	263.1
80°	92.6	115.5	165.1	197.3	212.1
82.5°	63.1	85.9	123.5	147.7	155.7
85°	37.6	53.7	79.2	92.6	91.3
87.5°	17.5	22.8	32.2	32.2	30.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)