

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: P308731

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-CP250-W2A-U-5000K**

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: P308731  
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: 22FCZ2-29HE-UNV-L82765-CP250-W2A-U-5000K  
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**

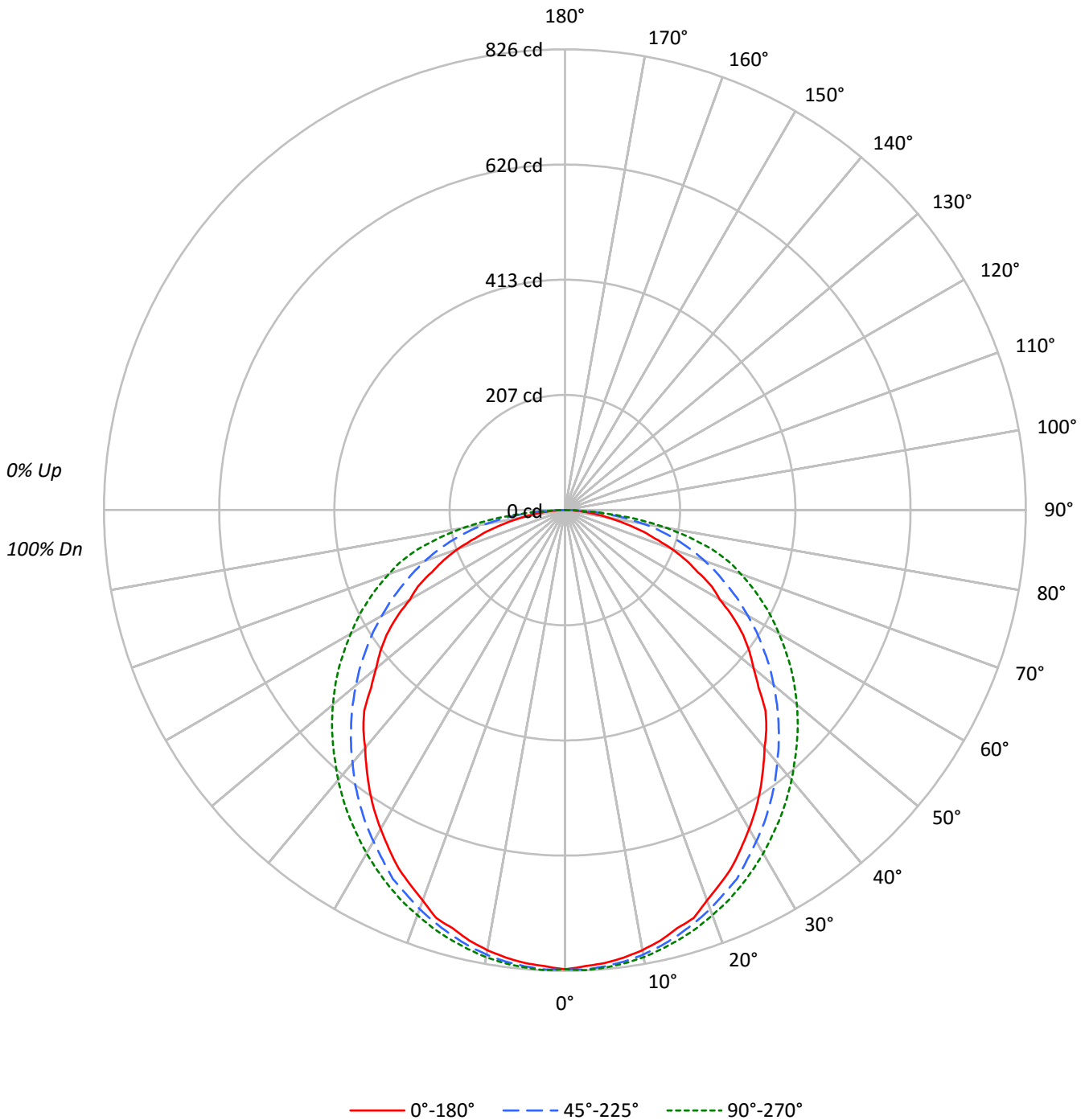
Lumens per Lamp: N/A  
Luminaire Lumens: 2454.0 lumens  
Efficiency: N/A  
Efficacy: 107.2 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 22.9  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	2215	2215	2215
5°	2202	2218	2224
10°	2189	2211	2224
15°	2163	2196	2218
20°	2132	2180	2213
25°	2099	2166	2211
30°	2051	2131	2208
35°	2006	2107	2211
40°	1956	2080	2220
45°	1936	2061	2239
50°	1849	2045	2272
55°	1829	2039	2320
60°	1725	2035	2383
65°	1675	2049	2490
70°	1608	2098	2643
75°	1465	2162	2846
80°	1255	2239	2876
85°	1016	2140	2467



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.9	3.2
10°-20°	222.2	9.1
20°-30°	334.5	13.6
30°-40°	401.5	16.4
40°-50°	419.6	17.1
50°-60°	391.1	15.9
60°-70°	320.7	13.1
70°-80°	216.1	8.8
80°-90°	70.4	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°	634.7	25.9
0°-40°	1036.1	42.2
0°-60°	1846.8	75.3
0°-90°	2454.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2454.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	823	823	823	823	823	
5°	815	818	821	822	823	77
15°	776	781	788	795	796	219
25°	707	712	729	740	745	325
35°	611	619	641	664	673	382
45°	509	512	542	574	588	389
55°	390	397	435	476	494	346
65°	263	275	322	369	391	262
75°	141	156	208	255	274	148
85°	33	47	69	81	80	39
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	823.3	823.3	823.3	823.3	823.3
2.5°	818.6	821.0	824.5	825.7	825.7
5°	815.1	817.5	821.0	822.2	823.3
7.5°	809.2	811.6	816.3	818.6	819.8
10°	801.0	803.4	809.2	812.8	813.9
12.5°	790.5	792.8	799.8	804.5	805.7
15°	776.4	781.1	788.1	795.1	796.3
17.5°	767.0	765.8	775.2	783.4	785.8
20°	744.6	750.5	761.1	770.5	772.8
22.5°	725.9	730.6	744.6	755.2	759.9
25°	707.1	711.8	729.4	739.9	744.6
27.5°	683.6	690.6	707.1	722.3	728.2
30°	660.1	667.1	685.9	703.5	710.6
32.5°	636.6	644.8	664.8	683.6	691.8
35°	610.7	619.0	641.3	663.6	673.0
37.5°	583.7	594.3	617.8	642.5	653.0
40°	556.7	567.3	592.0	620.1	631.9
42.5°	534.4	539.1	567.3	597.8	609.6
45°	508.6	512.1	541.5	574.3	588.4
47.5°	471.0	483.9	515.6	552.0	566.1
50°	441.6	455.7	488.6	527.4	542.6
52.5°	417.0	426.4	462.8	501.5	519.1
55°	389.9	397.0	434.6	475.7	494.5
57.5°	357.1	370.0	407.6	449.8	468.6
60°	320.6	337.1	378.2	424.0	442.8
62.5°	297.2	306.5	351.2	397.0	418.1
65°	263.1	274.8	321.8	368.8	391.1
67.5°	234.9	246.6	294.8	341.8	364.1
70°	204.4	216.1	266.6	313.6	335.9
72.5°	169.1	185.6	238.4	285.4	308.9
75°	140.9	156.2	207.9	254.9	273.7
77.5°	109.2	129.2	177.4	216.1	230.2
80°	81.0	101.0	144.5	172.7	185.6
82.5°	55.2	75.2	108.1	129.2	136.2
85°	32.9	47.0	69.3	81.0	79.9
87.5°	15.3	20.0	28.2	28.2	27.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)