

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: P308689

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-CP250-W2A-U-6500K**

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: P308689  
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: 22FCZ2-24HE-UNV-L82765-CP250-W2A-U-6500K  
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**

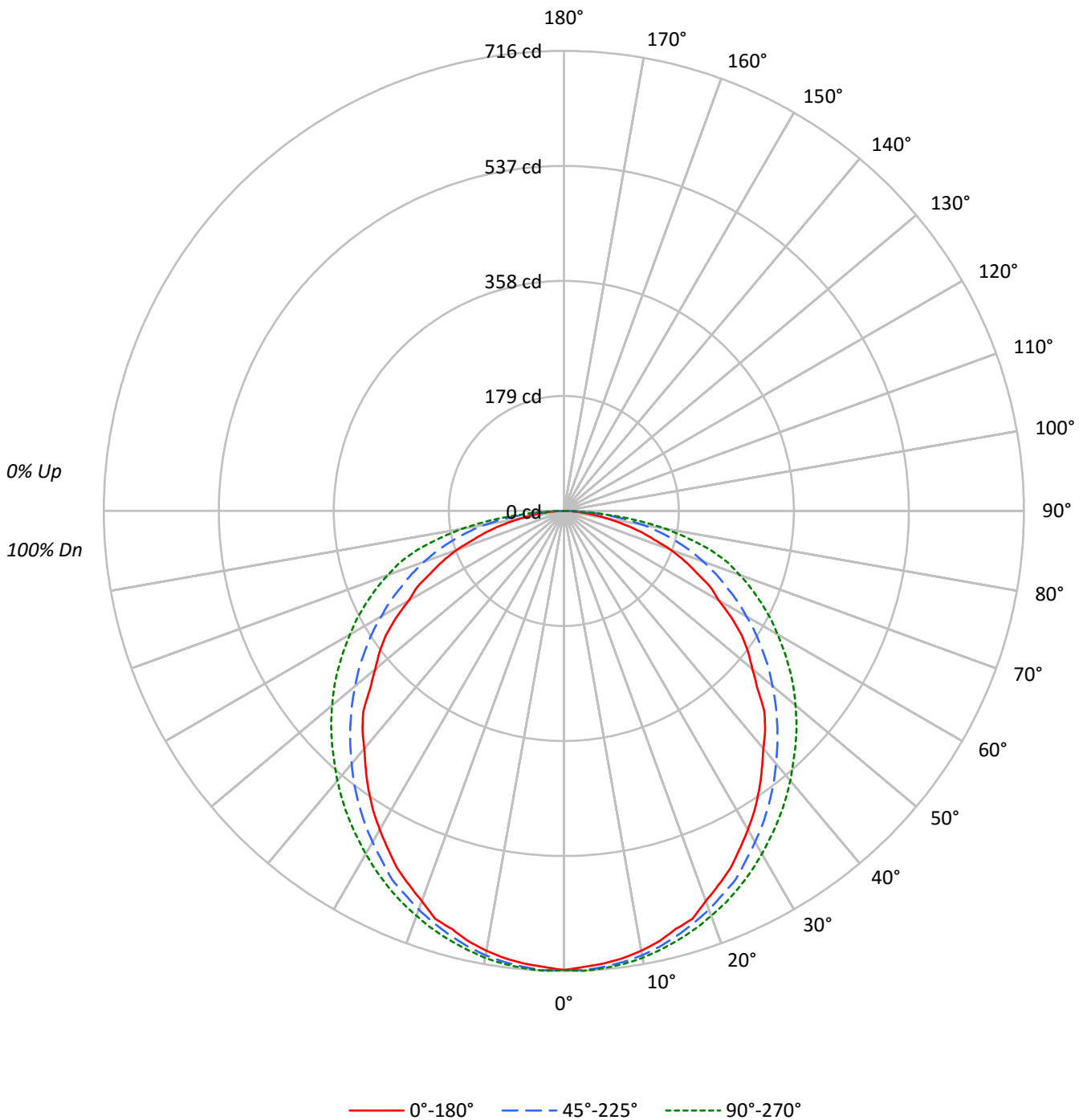
Lumens per Lamp: N/A  
Luminaire Lumens: 2129.0 lumens  
Efficiency: N/A  
Efficacy: 108.1 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.7  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	1922	1922	1922
5°	1910	1924	1930
10°	1899	1918	1929
15°	1876	1905	1925
20°	1850	1891	1920
25°	1821	1879	1918
30°	1780	1849	1916
35°	1741	1828	1918
40°	1697	1804	1926
45°	1679	1787	1943
50°	1604	1775	1971
55°	1587	1769	2013
60°	1497	1766	2068
65°	1453	1778	2160
70°	1395	1820	2293
75°	1272	1876	2468
80°	1089	1942	2495
85°	880	1856	2140



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	67.6	3.2
10°-20°	192.8	9.1
20°-30°	290.2	13.6
30°-40°	348.3	16.4
40°-50°	364.0	17.1
50°-60°	339.3	15.9
60°-70°	278.3	13.1
70°-80°	187.5	8.8
80°-90°	61.1	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°	550.6	25.9
0°-40°	898.9	42.2
0°-60°	1602.2	75.3
0°-90°	2129.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2129.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	714	714	714	714	714	
5°	707	709	712	713	714	67
15°	674	678	684	690	691	190
25°	613	618	633	642	646	282
35°	530	537	556	576	584	331
45°	441	444	470	498	510	337
55°	338	344	377	413	429	300
65°	228	238	279	320	339	227
75°	122	136	180	221	237	129
85°	28	41	60	70	69	34
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	714.3	714.3	714.3	714.3	714.3
2.5°	710.2	712.3	715.3	716.3	716.3
5°	707.2	709.2	712.3	713.3	714.3
7.5°	702.1	704.1	708.2	710.2	711.2
10°	694.9	697.0	702.1	705.1	706.1
12.5°	685.8	687.8	693.9	698.0	699.0
15°	673.5	677.6	683.7	689.8	690.9
17.5°	665.4	664.4	672.5	679.7	681.7
20°	646.0	651.1	660.3	668.4	670.5
22.5°	629.7	633.8	646.0	655.2	659.3
25°	613.4	617.5	632.8	642.0	646.0
27.5°	593.0	599.2	613.4	626.7	631.8
30°	572.7	578.8	595.1	610.4	616.5
32.5°	552.3	559.4	576.7	593.0	600.2
35°	529.9	537.0	556.4	575.7	583.9
37.5°	506.4	515.6	536.0	557.4	566.5
40°	483.0	492.2	513.6	538.0	548.2
42.5°	463.6	467.7	492.2	518.7	528.8
45°	441.2	444.3	469.7	498.3	510.5
47.5°	408.6	419.8	447.3	478.9	491.1
50°	383.1	395.4	423.9	457.5	470.8
52.5°	361.7	369.9	401.5	435.1	450.4
55°	338.3	344.4	377.0	412.7	429.0
57.5°	309.8	321.0	353.6	390.3	406.6
60°	278.2	292.4	328.1	367.8	384.2
62.5°	257.8	266.0	304.7	344.4	362.8
65°	228.2	238.4	279.2	320.0	339.3
67.5°	203.8	214.0	255.8	296.5	315.9
70°	177.3	187.5	231.3	272.1	291.4
72.5°	146.7	161.0	206.9	247.6	268.0
75°	122.3	135.5	180.4	221.1	237.4
77.5°	94.8	112.1	153.9	187.5	199.7
80°	70.3	87.6	125.3	149.8	161.0
82.5°	47.9	65.2	93.7	112.1	118.2
85°	28.5	40.8	60.1	70.3	69.3
87.5°	13.2	17.3	24.5	24.5	23.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)