

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: P308959

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-S-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: P308959  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)  
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-S-CP250-W2A-U-6500K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH 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**

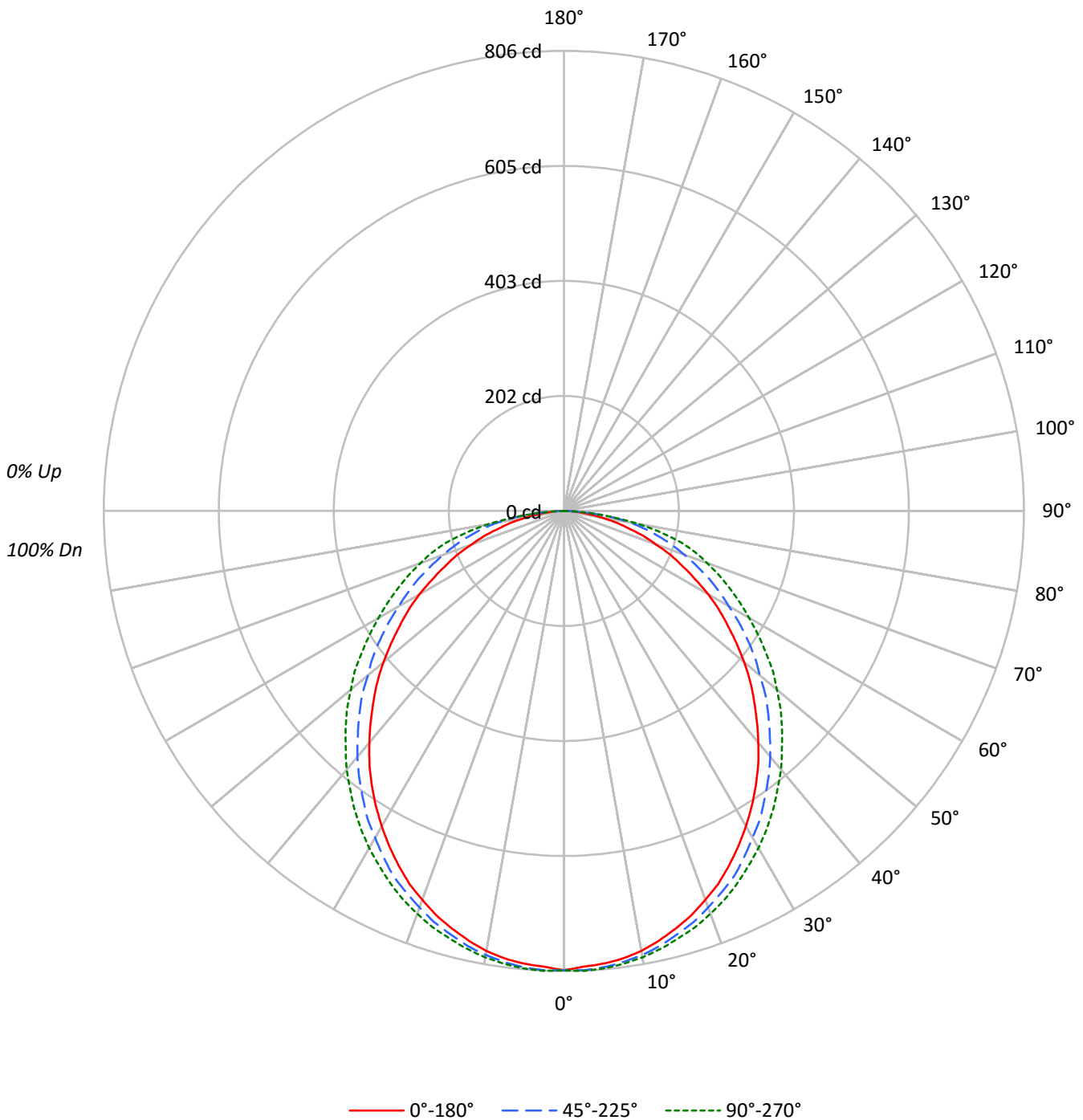
Lumens per Lamp: N/A  
Luminaire Lumens: 2245.0 lumens  
Efficiency: N/A  
Efficacy: 114.0 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.7  
Input Voltage (V): NR  
Input Current (A<sub>in</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	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2165	2165	2165
5°	2150	2167	2173
10°	2138	2158	2170
15°	2110	2139	2159
20°	2076	2118	2151
25°	2034	2096	2137
30°	1982	2054	2119
35°	1927	2016	2099
40°	1862	1976	2079
45°	1794	1929	2057
50°	1728	1877	2039
55°	1646	1843	2025
60°	1573	1798	2018
65°	1467	1787	2041
70°	1352	1772	2102
75°	1220	1797	2210
80°	1055	1850	2078
85°	874	1553	1553



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	76.1	3.4
10°-20°	216.5	9.6
20°-30°	323.9	14.4
30°-40°	383.6	17.1
40°-50°	391.0	17.4
50°-60°	350.4	15.6
60°-70°	274.3	12.2
70°-80°	176.9	7.9
80°-90°	52.3	2.3
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°	616.5	27.5
0°-40°	1000.1	44.5
0°-60°	1741.5	77.6
0°-90°	2245.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2245.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	804	804	804	804	804	
5°	796	798	802	803	804	76
15°	757	762	768	774	775	214
25°	685	691	706	715	720	315
35°	587	594	614	633	639	367
45°	471	482	507	533	540	364
55°	351	362	393	420	432	315
65°	230	244	281	308	320	229
75°	117	135	173	202	213	126
85°	28	39	50	50	50	33
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	804.5	804.5	804.5	804.5	804.5
2.5°	799.2	801.3	805.5	806.5	806.5
5°	796.1	798.2	802.4	803.4	804.5
7.5°	790.8	791.9	797.1	799.2	800.3
10°	782.5	784.6	789.8	792.9	794.0
12.5°	770.9	774.1	780.4	784.6	785.6
15°	757.3	761.5	767.8	774.1	775.1
17.5°	742.7	746.8	755.2	762.6	764.6
20°	724.8	730.1	739.5	747.9	751.0
22.5°	707.0	711.2	722.8	733.2	736.4
25°	685.0	691.3	706.0	715.4	719.6
27.5°	662.0	669.3	684.0	696.6	700.8
30°	637.9	645.2	661.0	676.7	681.9
32.5°	612.8	621.1	640.0	655.7	661.0
35°	586.6	593.9	613.8	632.7	639.0
37.5°	559.3	565.6	588.7	608.6	614.9
40°	530.0	538.4	562.5	585.5	591.8
42.5°	500.7	510.1	534.2	559.3	565.6
45°	471.4	481.8	507.0	533.2	540.5
47.5°	443.1	451.5	479.7	504.9	515.4
50°	412.7	421.1	448.3	476.6	487.1
52.5°	381.3	392.8	422.1	449.4	461.9
55°	350.9	362.4	392.8	420.0	431.6
57.5°	322.6	332.0	363.5	391.8	403.3
60°	292.2	300.6	334.1	364.5	375.0
62.5°	259.8	272.3	306.9	335.2	347.8
65°	230.4	244.1	280.7	308.0	320.5
67.5°	203.2	215.8	251.4	280.7	294.3
70°	171.8	188.5	225.2	254.5	267.1
72.5°	146.6	161.3	199.0	228.3	242.0
75°	117.3	135.1	172.8	202.2	212.6
77.5°	93.2	111.0	146.6	169.7	174.9
80°	68.1	85.9	119.4	130.9	134.1
82.5°	46.1	62.8	85.9	89.0	90.1
85°	28.3	38.8	50.3	50.3	50.3
87.5°	13.6	15.7	17.8	16.8	16.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)