

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: P308936

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-S-CP125-W2A-U-4000K**

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: P308936  
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-CP125-W2A-U-4000K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 0.125" 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**

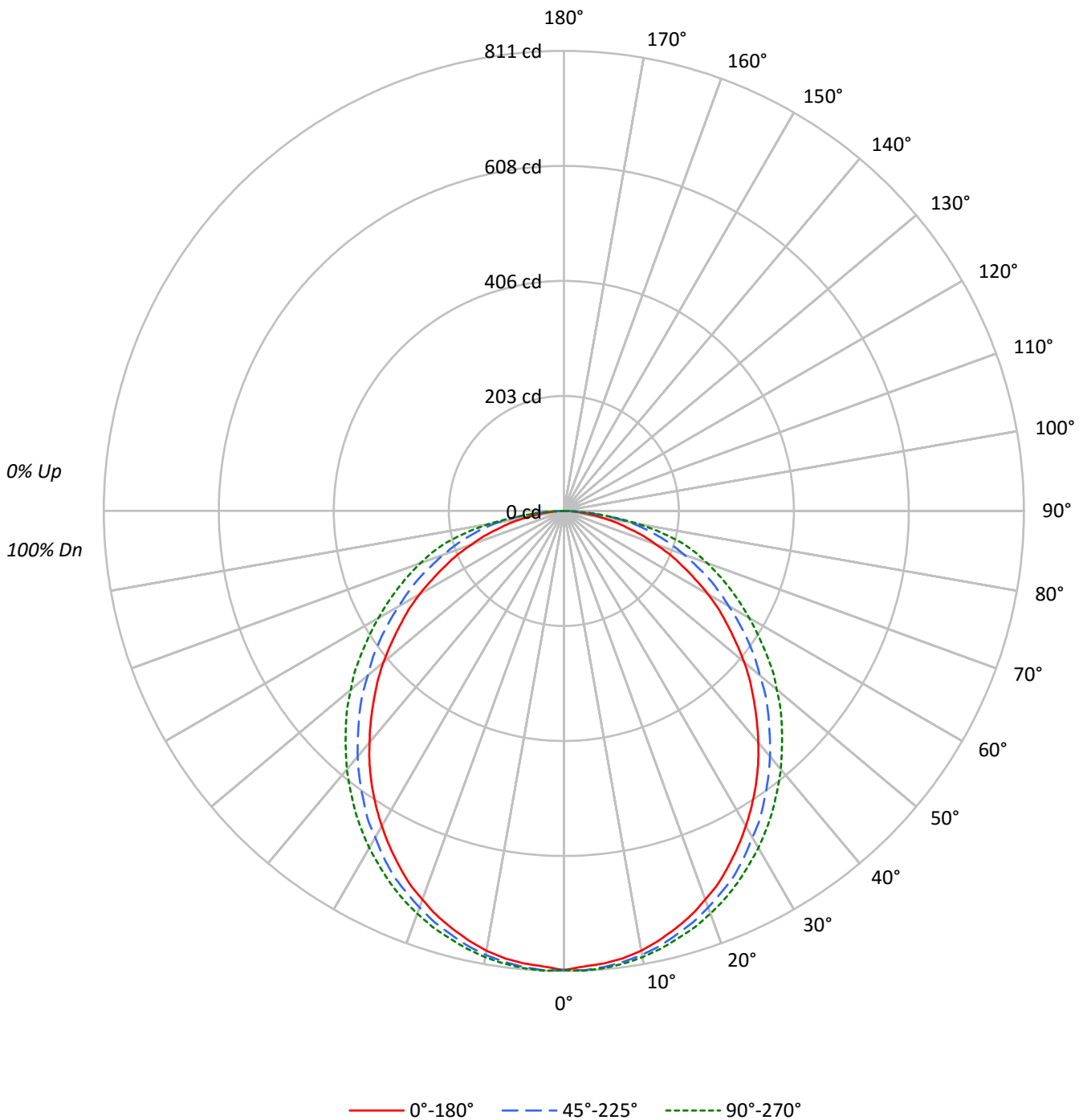
Lumens per Lamp: N/A  
Luminaire Lumens: 2258.0 lumens  
Efficiency: N/A  
Efficacy: 118.2 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.1  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	2177	2177	2177
5°	2163	2180	2186
10°	2150	2171	2182
15°	2122	2151	2172
20°	2088	2130	2163
25°	2046	2108	2149
30°	1994	2066	2131
35°	1938	2028	2111
40°	1873	1987	2091
45°	1804	1940	2069
50°	1738	1888	2051
55°	1656	1854	2037
60°	1582	1809	2030
65°	1476	1798	2053
70°	1360	1782	2114
75°	1227	1807	2224
80°	1062	1861	2091
85°	877	1562	1562



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	76.5	3.4
10°-20°	217.8	9.6
20°-30°	325.8	14.4
30°-40°	385.8	17.1
40°-50°	393.2	17.4
50°-60°	352.4	15.6
60°-70°	275.9	12.2
70°-80°	177.9	7.9
80°-90°	52.6	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°	620.1	27.5
0°-40°	1005.9	44.5
0°-60°	1751.6	77.6
0°-90°	2258.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2258.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	809	809	809	809	809	
5°	801	803	807	808	809	76
15°	762	766	772	779	780	215
25°	689	695	710	720	724	317
35°	590	597	617	636	643	369
45°	474	485	510	536	544	366
55°	353	364	395	422	434	316
65°	232	246	282	310	322	230
75°	118	136	174	203	214	127
85°	28	39	51	51	51	33
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	809.1	809.1	809.1	809.1	809.1
2.5°	803.8	806.0	810.2	811.2	811.2
5°	800.7	802.8	807.0	808.1	809.1
7.5°	795.4	796.5	801.7	803.8	804.9
10°	787.0	789.1	794.4	797.5	798.6
12.5°	775.4	778.6	784.9	789.1	790.1
15°	761.7	765.9	772.2	778.6	779.6
17.5°	747.0	751.2	759.6	767.0	769.1
20°	729.0	734.3	743.8	752.2	755.4
22.5°	711.1	715.3	726.9	737.5	740.6
25°	689.0	695.3	710.1	719.6	723.8
27.5°	665.8	673.2	688.0	700.6	704.8
30°	641.6	649.0	664.8	680.6	685.8
32.5°	616.3	624.7	643.7	659.5	664.8
35°	590.0	597.4	617.4	636.3	642.7
37.5°	562.6	568.9	592.1	612.1	618.4
40°	533.1	541.5	565.7	588.9	595.2
42.5°	503.6	513.1	537.3	562.6	568.9
45°	474.1	484.6	509.9	536.2	543.6
47.5°	445.6	454.1	482.5	507.8	518.3
50°	415.1	423.5	450.9	479.4	489.9
52.5°	383.5	395.1	424.6	452.0	464.6
55°	352.9	364.5	395.1	422.5	434.1
57.5°	324.5	334.0	365.6	394.0	405.6
60°	293.9	302.4	336.1	366.6	377.2
62.5°	261.3	273.9	308.7	337.1	349.8
65°	231.8	245.5	282.3	309.7	322.4
67.5°	204.4	217.0	252.8	282.3	296.0
70°	172.8	189.6	226.5	256.0	268.7
72.5°	147.5	162.2	200.2	229.7	243.4
75°	118.0	135.9	173.8	203.3	213.9
77.5°	93.8	111.7	147.5	170.7	175.9
80°	68.5	86.4	120.1	131.7	134.9
82.5°	46.4	63.2	86.4	89.6	90.6
85°	28.4	39.0	50.6	50.6	50.6
87.5°	13.7	15.8	17.9	16.9	16.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)