

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: P311817

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-S-CP125-W2A-U-4500K**

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: P311817  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 24FCZ2-75HE-UNV-L82765-S-CP125-W2A-U-4500K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" POLYCARB SHEET  
Light Source: (336) 4500K 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**

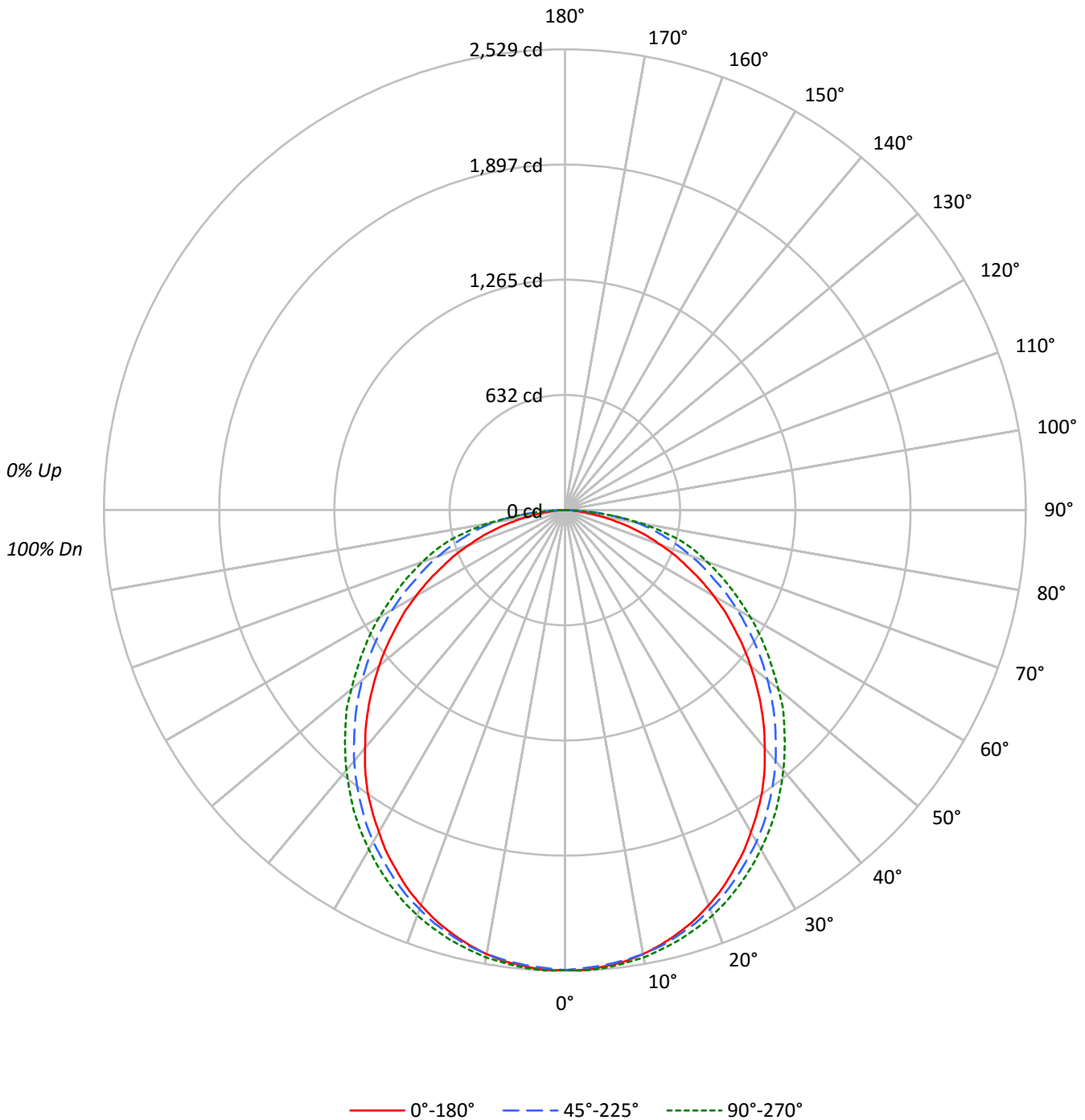
Lumens per Lamp: N/A  
Luminaire Lumens: 7187.0 lumens  
Efficiency: N/A  
Efficacy: 112.3 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 64  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

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

	0°	45°	90°
0°	3397	3397	3397
5°	3395	3385	3407
10°	3381	3381	3406
15°	3348	3364	3399
20°	3305	3337	3390
25°	3243	3304	3369
30°	3171	3267	3341
35°	3101	3213	3315
40°	2995	3160	3276
45°	2897	3097	3240
50°	2786	3039	3202
55°	2662	2983	3170
60°	2537	2936	3164
65°	2377	2885	3183
70°	2200	2901	3269
75°	1970	2955	3453
80°	1592	3131	3378
85°	1198	2749	2678



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	239.0	3.3
10°-20°	683.0	9.5
20°-30°	1026.7	14.3
30°-40°	1222.9	17.0
40°-50°	1251.6	17.4
50°-60°	1126.8	15.7
60°-70°	884.9	12.3
70°-80°	574.3	8.0
80°-90°	177.6	2.5
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°	1948.7	27.1
0°-40°	3171.7	44.1
0°-60°	5550.1	77.2
0°-90°	7187.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7187.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2525	2525	2525	2525	2525	
5°	2513	2518	2507	2520	2523	239
15°	2404	2411	2415	2436	2440	678
25°	2185	2203	2226	2262	2269	1006
35°	1888	1911	1956	2004	2018	1178
45°	1523	1559	1628	1689	1703	1174
55°	1135	1185	1272	1338	1352	1017
65°	746	804	906	982	1000	743
75°	379	452	568	646	664	401
85°	78	144	178	174	174	94
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2524.8	2524.8	2524.8	2524.8	2524.8
2.5°	2527.1	2527.1	2515.7	2527.1	2529.4
5°	2513.4	2518.0	2506.6	2520.3	2522.6
7.5°	2499.7	2499.7	2492.9	2506.6	2508.9
10°	2474.6	2476.9	2474.6	2490.6	2492.9
12.5°	2442.7	2447.2	2449.5	2465.5	2467.8
15°	2403.8	2410.7	2415.3	2435.8	2440.4
17.5°	2360.5	2367.3	2378.7	2401.6	2406.1
20°	2308.0	2317.1	2330.8	2360.5	2367.3
22.5°	2250.9	2260.0	2282.9	2310.3	2321.7
25°	2184.7	2203.0	2225.8	2262.3	2269.2
27.5°	2118.5	2134.5	2164.1	2203.0	2212.1
30°	2040.9	2066.0	2102.5	2141.3	2150.5
32.5°	1965.5	1990.7	2034.0	2075.1	2086.5
35°	1887.9	1910.8	1956.4	2004.3	2018.0
37.5°	1798.9	1828.6	1878.8	1926.7	1940.4
40°	1705.3	1741.8	1798.9	1849.1	1865.1
42.5°	1616.3	1655.1	1712.1	1766.9	1785.2
45°	1522.7	1559.2	1627.7	1689.3	1703.0
47.5°	1426.8	1467.9	1540.9	1602.6	1625.4
50°	1330.9	1374.3	1451.9	1515.8	1529.5
52.5°	1235.0	1280.7	1362.9	1431.4	1438.2
55°	1134.6	1184.8	1271.6	1337.8	1351.5
57.5°	1043.3	1086.6	1180.2	1248.7	1264.7
60°	942.8	990.8	1091.2	1155.1	1175.7
62.5°	846.9	897.2	1002.2	1066.1	1084.4
65°	746.5	803.6	906.3	981.6	999.9
67.5°	659.7	714.5	824.1	897.2	915.4
70°	559.3	620.9	737.4	812.7	831.0
72.5°	472.6	536.5	652.9	725.9	753.3
75°	379.0	452.0	568.4	646.0	664.3
77.5°	287.6	372.1	490.8	550.2	550.2
80°	205.5	294.5	404.1	431.5	436.0
82.5°	134.7	221.4	299.1	296.8	296.8
85°	77.6	143.8	178.1	173.5	173.5
87.5°	29.7	59.4	63.9	63.9	61.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)