

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: P310472

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-RDP-CP187-W2A-U-2700K**

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: P310472  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)  
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-RDP-CP187-W2A-U-2700K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.187" POLYCARB SHEET  
Light Source: (336) 2700K 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**

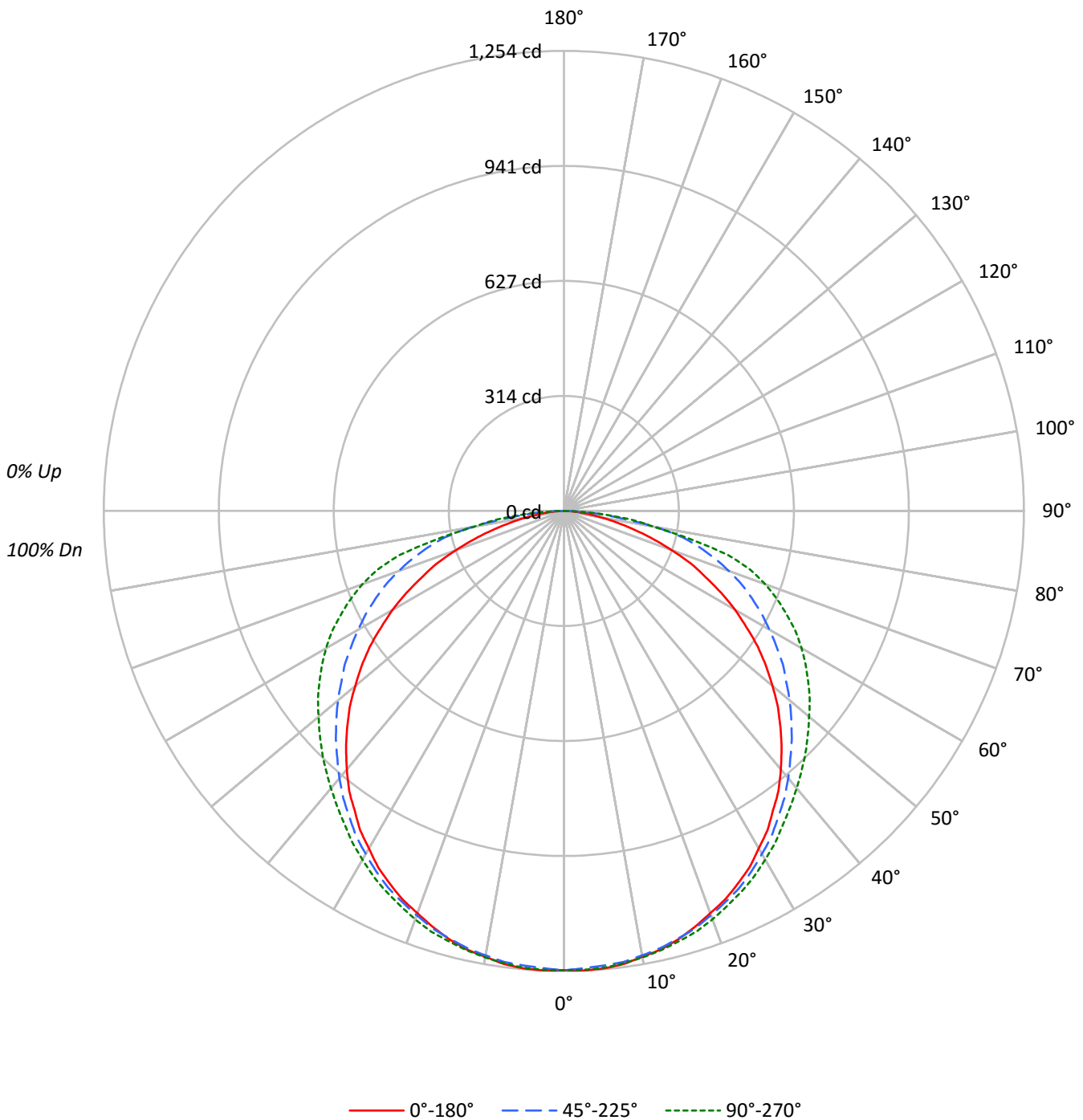
Lumens per Lamp: N/A  
Luminaire Lumens: 3980.0 lumens  
Efficiency: N/A  
Efficacy: 63.4 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 62.8  
Input Voltage (V): NR  
Input Current (A<sub>in</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	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

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

	0°	45°	90°
0°	1684	1684	1684
5°	1690	1680	1688
10°	1686	1680	1688
15°	1683	1680	1691
20°	1671	1679	1696
25°	1665	1682	1700
30°	1650	1678	1705
35°	1634	1673	1712
40°	1616	1671	1734
45°	1589	1672	1773
50°	1554	1682	1827
55°	1514	1709	1908
60°	1450	1742	2013
65°	1358	1804	2137
70°	1235	1887	2299
75°	1047	1991	2401
80°	826	2004	1943
85°	610	1524	1707



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	118.7	3.0
10°-20°	341.7	8.6
20°-30°	522.5	13.1
30°-40°	638.8	16.0
40°-50°	680.8	17.1
50°-60°	650.9	16.4
60°-70°	551.4	13.9
70°-80°	370.6	9.3
80°-90°	104.5	2.6
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°	982.9	24.7
0°-40°	1621.7	40.7
0°-60°	2953.4	74.2
0°-90°	3980.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3980.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1252	1252	1252	1252	1252	
5°	1252	1250	1244	1250	1250	119
15°	1208	1208	1206	1216	1214	341
25°	1121	1125	1133	1143	1145	517
35°	995	1003	1019	1038	1042	623
45°	835	849	878	916	932	644
55°	646	669	728	786	813	575
65°	426	470	567	642	671	423
75°	201	274	383	448	462	216
85°	40	81	99	107	111	49
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1251.6	1251.6	1251.6	1251.6	1251.6
2.5°	1253.6	1253.6	1247.6	1251.6	1251.6
5°	1251.6	1249.6	1243.7	1249.6	1249.6
7.5°	1245.7	1243.7	1239.8	1245.7	1243.7
10°	1233.8	1233.8	1229.9	1235.8	1235.8
12.5°	1224.0	1222.0	1220.0	1227.9	1225.9
15°	1208.2	1208.2	1206.2	1216.1	1214.1
17.5°	1188.4	1190.4	1192.4	1200.3	1202.2
20°	1166.7	1170.7	1172.6	1184.5	1184.5
22.5°	1147.0	1148.9	1152.9	1164.7	1164.7
25°	1121.3	1125.3	1133.1	1143.0	1145.0
27.5°	1095.6	1097.6	1107.5	1121.3	1123.3
30°	1062.1	1068.0	1079.8	1095.6	1097.6
32.5°	1032.5	1038.4	1052.2	1068.0	1072.0
35°	995.0	1002.9	1018.6	1038.4	1042.3
37.5°	961.4	967.3	987.1	1008.8	1014.7
40°	919.9	931.8	951.5	977.2	987.1
42.5°	878.5	890.3	914.0	947.6	959.4
45°	835.1	848.9	878.5	916.0	931.8
47.5°	791.6	807.4	841.0	884.4	902.2
50°	742.3	762.0	803.5	852.8	872.6
52.5°	694.9	718.6	764.0	819.3	844.9
55°	645.5	669.2	728.5	785.7	813.3
57.5°	590.3	621.8	687.0	752.1	781.8
60°	538.9	568.5	647.5	718.6	748.2
62.5°	483.7	523.1	608.0	683.0	712.7
65°	426.4	469.8	566.6	641.6	671.2
67.5°	375.1	422.5	525.1	600.1	629.7
70°	313.9	373.1	479.7	554.7	584.3
72.5°	256.6	321.8	432.3	505.4	533.0
75°	201.4	274.4	383.0	448.1	461.9
77.5°	150.0	227.0	331.7	359.3	349.4
80°	106.6	181.6	258.6	244.8	250.7
82.5°	69.1	138.2	159.9	181.6	187.5
85°	39.5	80.9	98.7	106.6	110.6
87.5°	17.8	29.6	39.5	39.5	37.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)