

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: P310425

Luminaire Tested: **24FCZ2-70HE-UNV-L82765-RDP-CP125-W2A-U-5700K**

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: P310425  
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: 24FCZ2-70HE-UNV-L82765-RDP-CP125-W2A-U-5700K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB SHEET  
Light Source: (336) 5700K 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**

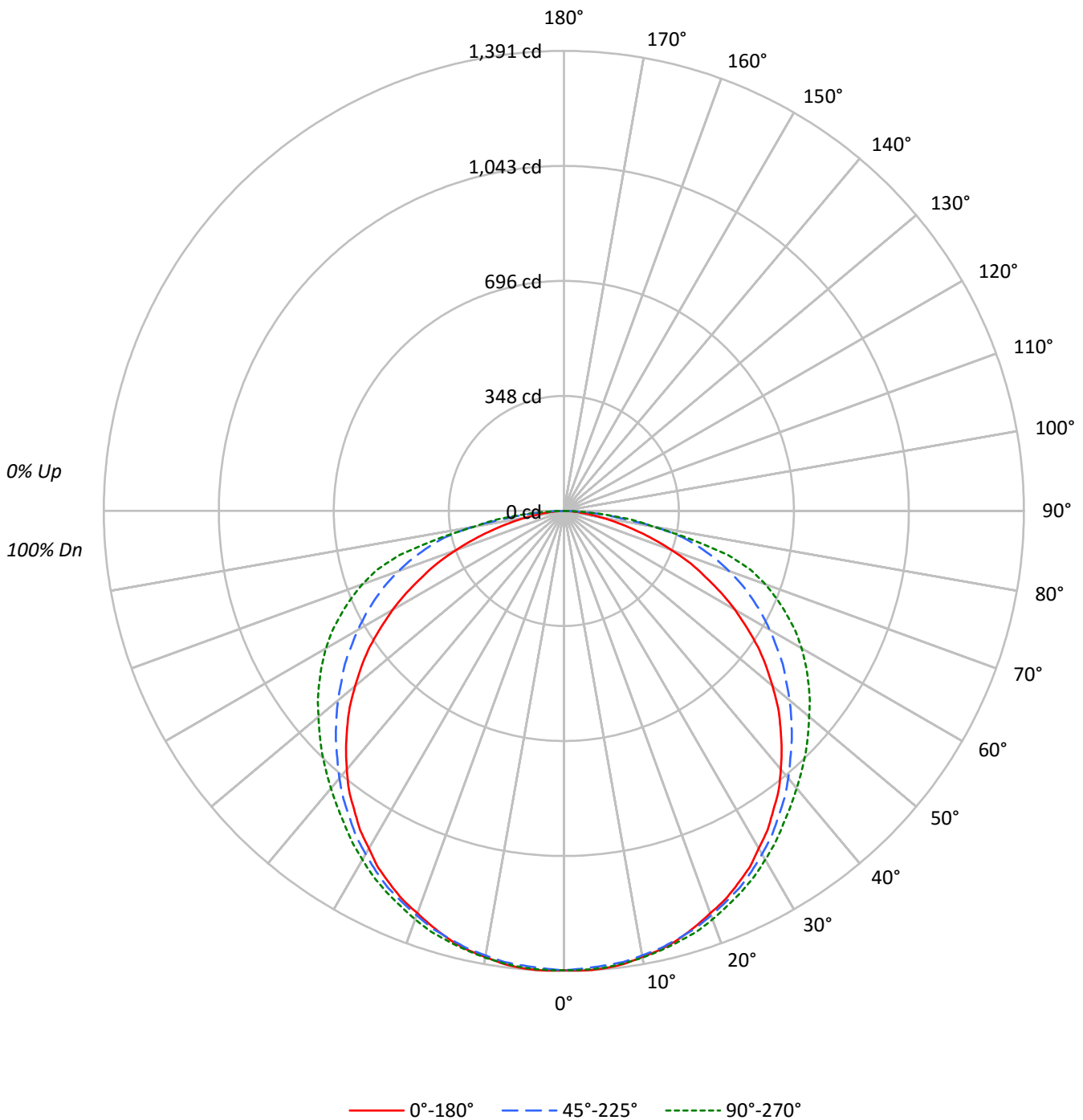
Lumens per Lamp: N/A  
Luminaire Lumens: 4416.0 lumens  
Efficiency: N/A  
Efficacy: 74.5 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 59.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
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°	1868	1868	1868
5°	1876	1864	1873
10°	1870	1864	1873
15°	1867	1864	1876
20°	1854	1863	1882
25°	1847	1867	1886
30°	1831	1861	1892
35°	1813	1856	1900
40°	1793	1854	1924
45°	1763	1855	1967
50°	1724	1866	2027
55°	1680	1896	2117
60°	1609	1933	2234
65°	1506	2001	2371
70°	1370	2094	2551
75°	1161	2209	2665
80°	917	2223	2156
85°	676	1690	1894



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	131.7	3.0
10°-20°	379.1	8.6
20°-30°	579.8	13.1
30°-40°	708.7	16.0
40°-50°	755.4	17.1
50°-60°	722.2	16.4
60°-70°	611.8	13.9
70°-80°	411.2	9.3
80°-90°	116.0	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°	1090.6	24.7
0°-40°	1799.4	40.7
0°-60°	3277.0	74.2
0°-90°	4416.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4416.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1389	1389	1389	1389	1389	
5°	1389	1386	1380	1386	1386	132
15°	1340	1340	1338	1349	1347	378
25°	1244	1248	1257	1268	1270	573
35°	1104	1113	1130	1152	1156	692
45°	926	942	975	1016	1034	715
55°	716	742	808	872	902	638
65°	473	521	629	712	745	470
75°	223	304	425	497	513	239
85°	44	90	110	118	123	54
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1388.7	1388.7	1388.7	1388.7	1388.7
2.5°	1390.9	1390.9	1384.3	1388.7	1388.7
5°	1388.7	1386.5	1379.9	1386.5	1386.5
7.5°	1382.1	1379.9	1375.6	1382.1	1379.9
10°	1369.0	1369.0	1364.6	1371.2	1371.2
12.5°	1358.0	1355.9	1353.7	1362.4	1360.2
15°	1340.5	1340.5	1338.3	1349.3	1347.1
17.5°	1318.6	1320.8	1323.0	1331.8	1333.9
20°	1294.5	1298.9	1301.1	1314.2	1314.2
22.5°	1272.6	1274.8	1279.2	1292.3	1292.3
25°	1244.1	1248.5	1257.3	1268.2	1270.4
27.5°	1215.7	1217.9	1228.8	1244.1	1246.3
30°	1178.4	1185.0	1198.1	1215.7	1217.9
32.5°	1145.6	1152.1	1167.5	1185.0	1189.4
35°	1104.0	1112.7	1130.2	1152.1	1156.5
37.5°	1066.7	1073.3	1095.2	1119.3	1125.9
40°	1020.7	1033.9	1055.8	1084.2	1095.2
42.5°	974.7	987.9	1014.1	1051.4	1064.5
45°	926.5	941.9	974.7	1016.3	1033.9
47.5°	878.3	895.9	933.1	981.3	1001.0
50°	823.6	845.5	891.5	946.2	968.2
52.5°	771.0	797.3	847.7	909.0	937.5
55°	716.3	742.5	808.3	871.8	902.4
57.5°	654.9	690.0	762.3	834.5	867.4
60°	598.0	630.8	718.4	797.3	830.2
62.5°	536.6	580.5	674.6	757.9	790.7
65°	473.1	521.3	628.6	711.9	744.7
67.5°	416.2	468.7	582.6	665.9	698.7
70°	348.3	414.0	532.3	615.5	648.4
72.5°	284.8	357.0	479.7	560.7	591.4
75°	223.4	304.5	424.9	497.2	512.6
77.5°	166.5	251.9	368.0	398.7	387.7
80°	118.3	201.5	286.9	271.6	278.2
82.5°	76.7	153.3	177.4	201.5	208.1
85°	43.8	89.8	109.5	118.3	122.7
87.5°	19.7	32.9	43.8	43.8	41.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)