

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: P310093

Luminaire Tested: **24FCZ2-45HE-UNV-L82765-RDP-CA08-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: P310093  
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: 24FCZ2-45HE-UNV-L82765-RDP-CA08-W2A-U-6500K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.08" ACRYLIC SHEET  
Light Source: (336) 6500K 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**

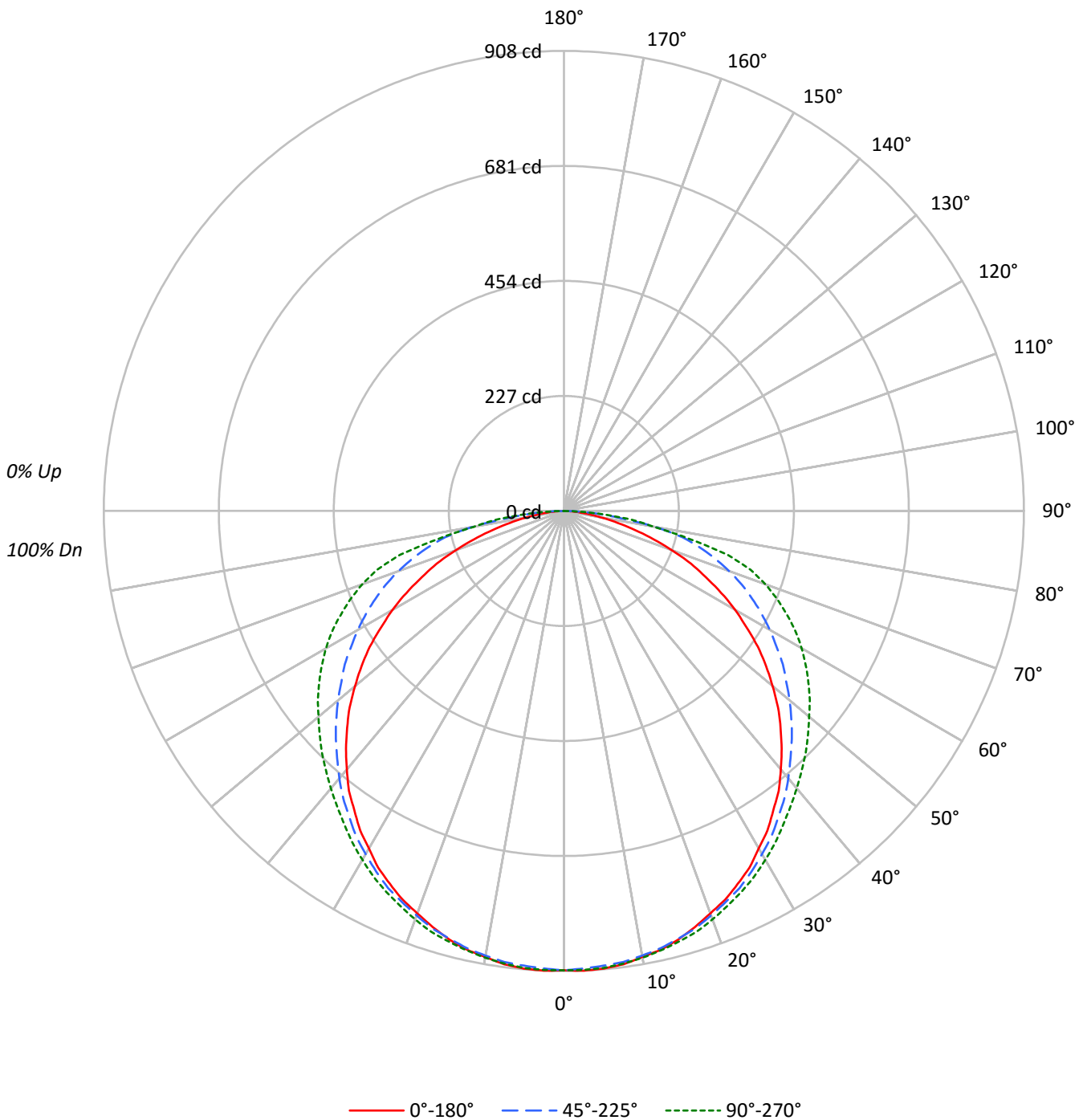
Lumens per Lamp: N/A  
Luminaire Lumens: 2883.0 lumens  
Efficiency: N/A  
Efficacy: 81.7 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 35.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
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°	1220	1220	1220
5°	1224	1217	1223
10°	1221	1217	1223
15°	1219	1217	1225
20°	1210	1216	1229
25°	1206	1219	1231
30°	1195	1215	1235
35°	1184	1212	1240
40°	1170	1211	1256
45°	1151	1211	1284
50°	1126	1218	1323
55°	1097	1238	1382
60°	1051	1262	1459
65°	983	1307	1548
70°	895	1367	1665
75°	758	1442	1739
80°	598	1451	1407
85°	442	1104	1237



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	86.0	3.0
10°-20°	247.5	8.6
20°-30°	378.5	13.1
30°-40°	462.7	16.0
40°-50°	493.2	17.1
50°-60°	471.5	16.4
60°-70°	399.4	13.9
70°-80°	268.5	9.3
80°-90°	75.7	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°	712.0	24.7
0°-40°	1174.7	40.7
0°-60°	2139.4	74.2
0°-90°	2883.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2883.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	907	907	907	907	907	
5°	907	905	901	905	905	86
15°	875	875	874	881	880	247
25°	812	815	821	828	829	374
35°	721	726	738	752	755	451
45°	605	615	636	664	675	467
55°	468	485	528	569	589	416
65°	309	340	410	465	486	307
75°	146	199	277	325	335	156
85°	29	59	72	77	80	35
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	906.6	906.6	906.6	906.6	906.6
2.5°	908.1	908.1	903.8	906.6	906.6
5°	906.6	905.2	900.9	905.2	905.2
7.5°	902.3	900.9	898.0	902.3	900.9
10°	893.8	893.8	890.9	895.2	895.2
12.5°	886.6	885.2	883.7	889.5	888.0
15°	875.2	875.2	873.7	880.9	879.5
17.5°	860.9	862.3	863.7	869.4	870.9
20°	845.1	848.0	849.4	858.0	858.0
22.5°	830.8	832.3	835.1	843.7	843.7
25°	812.2	815.1	820.8	828.0	829.4
27.5°	793.7	795.1	802.2	812.2	813.7
30°	769.3	773.6	782.2	793.7	795.1
32.5°	747.9	752.2	762.2	773.6	776.5
35°	720.7	726.4	737.9	752.2	755.0
37.5°	696.4	700.7	715.0	730.7	735.0
40°	666.4	675.0	689.3	707.9	715.0
42.5°	636.4	644.9	662.1	686.4	695.0
45°	604.9	614.9	636.4	663.5	675.0
47.5°	573.4	584.9	609.2	640.6	653.5
50°	537.7	552.0	582.0	617.8	632.1
52.5°	503.4	520.5	553.4	593.5	612.0
55°	467.6	484.8	527.7	569.1	589.2
57.5°	427.6	450.5	497.6	544.8	566.3
60°	390.4	411.8	469.0	520.5	542.0
62.5°	350.4	379.0	440.4	494.8	516.2
65°	308.9	340.3	410.4	464.8	486.2
67.5°	271.7	306.0	380.4	434.7	456.2
70°	227.4	270.3	347.5	401.8	423.3
72.5°	185.9	233.1	313.2	366.1	386.1
75°	145.9	198.8	277.4	324.6	334.6
77.5°	108.7	164.5	240.2	260.3	253.1
80°	77.2	131.6	187.3	177.3	181.6
82.5°	50.1	100.1	115.8	131.6	135.9
85°	28.6	58.6	71.5	77.2	80.1
87.5°	12.9	21.5	28.6	28.6	27.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)