

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: P310525

Luminaire Tested: **24FCZ2-30HE-UNV-L82765-CP187-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: P310525  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-15)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 24FCZ2-30HE-UNV-L82765-CP187-W2A-U-6500K  
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.187" POLYCARB 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**

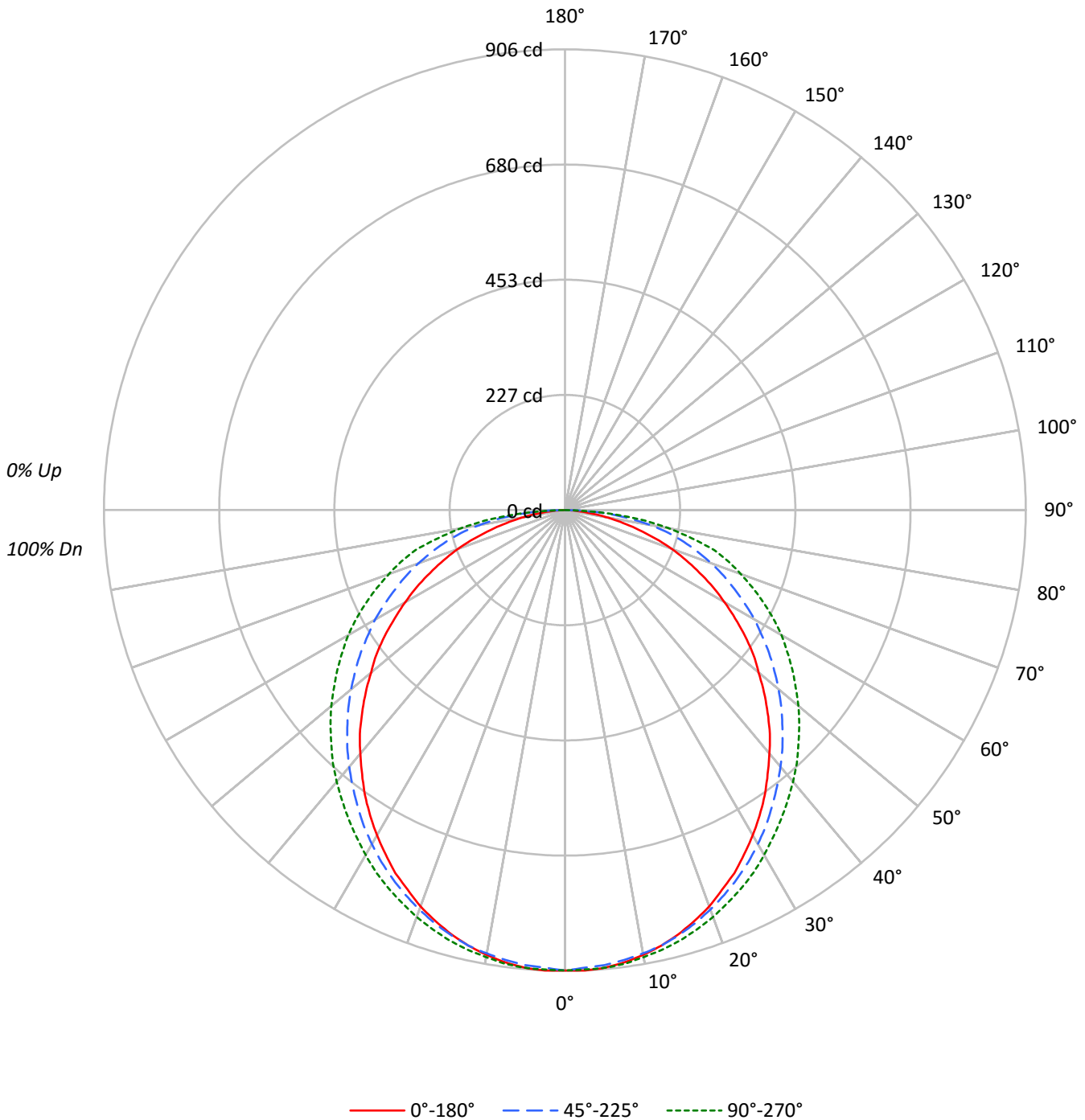
Lumens per Lamp: N/A  
Luminaire Lumens: 2745.0 lumens  
Efficiency: N/A  
Efficacy: 124.8 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 22  
Input Voltage (V): NR  
Input Current (A<sub>in</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	92	89	92	89	87	88	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	64	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	37	31	57	45	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

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

	0°	45°	90°
0°	1218	1218	1218
5°	1220	1213	1220
10°	1213	1209	1219
15°	1203	1205	1220
20°	1188	1197	1219
25°	1170	1188	1218
30°	1148	1179	1217
35°	1125	1167	1218
40°	1099	1158	1225
45°	1073	1151	1236
50°	1041	1148	1254
55°	1015	1149	1280
60°	975	1159	1323
65°	931	1171	1372
70°	881	1207	1447
75°	786	1260	1581
80°	670	1333	1616
85°	479	1321	1547



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	85.7	3.1
10°-20°	245.0	8.9
20°-30°	370.0	13.5
30°-40°	446.0	16.2
40°-50°	468.2	17.1
50°-60°	438.0	16.0
60°-70°	361.7	13.2
70°-80°	246.5	9.0
80°-90°	84.1	3.1
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°	700.7	25.5
0°-40°	1146.6	41.8
0°-60°	2052.8	74.8
0°-90°	2745.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2745.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	905	905	905	905	905	
5°	904	902	898	904	904	86
15°	863	864	865	874	876	243
25°	788	791	800	816	821	362
35°	685	692	710	734	741	428
45°	564	576	605	638	649	435
55°	433	450	490	530	546	386
65°	292	317	368	414	431	290
75°	151	186	242	288	304	161
85°	31	61	86	96	100	39
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	905.3	905.3	905.3	905.3	905.3
2.5°	906.2	905.3	900.7	905.3	904.4
5°	903.5	902.5	898.0	903.5	903.5
7.5°	897.1	897.1	892.5	898.9	899.8
10°	888.0	888.0	885.2	892.5	892.5
12.5°	877.0	877.0	877.0	884.3	885.2
15°	863.4	864.3	865.2	874.3	876.1
17.5°	847.0	848.8	851.5	862.5	864.3
20°	829.7	831.5	836.1	848.8	851.5
22.5°	807.8	812.4	818.8	833.3	836.1
25°	787.8	791.4	800.5	816.0	820.6
27.5°	763.2	768.7	780.5	796.9	803.3
30°	738.6	744.1	758.6	777.8	783.2
32.5°	712.2	720.4	735.9	755.9	762.3
35°	684.9	692.2	710.4	734.1	741.3
37.5°	654.8	664.8	684.9	710.4	719.5
40°	625.7	636.6	659.4	686.7	697.6
42.5°	596.5	607.5	633.0	663.9	674.9
45°	563.7	575.6	604.7	637.5	649.4
47.5°	531.0	545.5	577.4	612.0	624.8
50°	497.3	513.7	548.3	584.7	599.3
52.5°	467.2	482.7	519.1	558.3	571.9
55°	432.6	449.9	490.0	530.1	545.5
57.5°	397.1	416.2	459.0	502.7	518.2
60°	362.5	383.4	430.8	474.5	491.8
62.5°	328.8	349.7	398.9	444.4	461.7
65°	292.3	316.9	367.9	414.4	430.8
67.5°	257.7	284.2	337.9	383.4	399.8
70°	224.0	249.5	306.9	351.5	367.9
72.5°	187.6	216.8	274.1	320.6	337.9
75°	151.2	185.8	242.3	287.8	304.2
77.5°	117.5	153.0	209.5	246.8	255.0
80°	86.5	123.0	172.1	198.5	208.6
82.5°	55.6	92.0	131.1	150.3	158.5
85°	31.0	61.0	85.6	96.5	100.2
87.5°	12.8	26.4	34.6	39.2	39.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)