

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: P308132

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-HRP-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: P308132  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-22)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 22FCZ2-24HE-UNV-L82765-HRP-CP187-W2A-U-2700K  
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.187"  
POLYCARB SHEET  
Light Source: (168) 3000K 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**

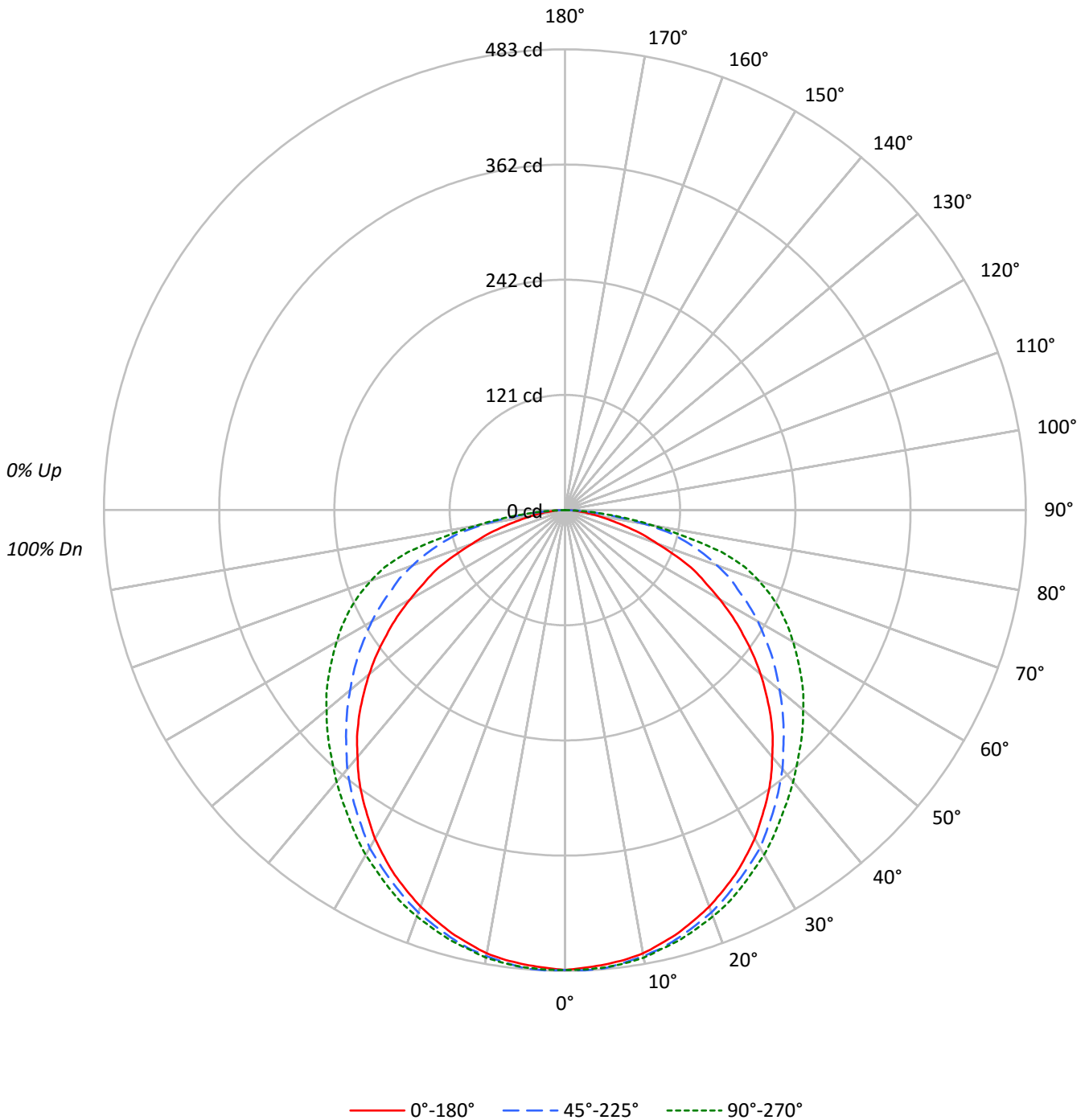
Lumens per Lamp: N/A  
Luminaire Lumens: 1464.0 lumens  
Efficiency: N/A  
Efficacy: 77.5 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 18.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
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	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	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°	1297	1297	1297
5°	1292	1302	1300
10°	1289	1297	1302
15°	1279	1292	1299
20°	1267	1285	1298
25°	1253	1275	1297
30°	1237	1271	1297
35°	1214	1256	1295
40°	1187	1246	1307
45°	1160	1234	1329
50°	1121	1230	1365
55°	1070	1239	1417
60°	1009	1258	1486
65°	953	1282	1588
70°	814	1337	1700
75°	682	1392	1766
80°	558	1345	1474
85°	485	997	1084



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	45.7	3.1
10°-20°	130.7	8.9
20°-30°	198.1	13.5
30°-40°	239.2	16.3
40°-50°	251.3	17.2
50°-60°	236.5	16.2
60°-70°	197.2	13.5
70°-80°	130.6	8.9
80°-90°	34.8	2.4
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°	374.4	25.6
0°-40°	613.6	41.9
0°-60°	1101.4	75.2
0°-90°	1464.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1464.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	482	482	482	482	482	
5°	478	479	482	482	481	45
15°	459	461	464	466	466	129
25°	422	425	429	435	437	194
35°	369	373	382	391	394	231
45°	305	309	324	341	349	235
55°	228	238	264	291	302	204
65°	150	162	201	235	249	146
75°	66	91	134	162	170	71
85°	16	24	32	35	35	18
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	482.1	482.1	482.1	482.1	482.1
2.5°	480.2	481.2	483.0	483.0	482.1
5°	478.4	479.3	482.1	482.1	481.2
7.5°	475.6	476.5	478.4	480.2	479.3
10°	471.9	472.8	474.7	476.5	476.5
12.5°	465.5	466.4	470.1	471.0	471.0
15°	459.0	460.8	463.6	465.5	466.4
17.5°	450.7	452.5	456.2	459.9	459.9
20°	442.4	444.2	448.8	452.5	453.4
22.5°	432.2	435.0	439.6	444.2	446.1
25°	422.0	424.8	429.4	435.0	436.8
27.5°	410.0	412.8	419.3	425.7	426.7
30°	398.0	400.8	409.1	414.7	417.4
32.5°	383.3	387.0	395.3	403.6	406.3
35°	369.4	373.1	382.3	390.7	394.3
37.5°	354.6	358.3	368.5	378.6	383.3
40°	338.0	342.6	354.6	365.7	372.2
42.5°	322.3	326.9	338.9	353.7	360.2
45°	304.8	309.4	324.2	340.8	349.1
47.5°	286.3	291.8	309.4	329.7	338.0
50°	267.8	274.3	293.7	316.8	326.0
52.5°	248.4	256.7	278.9	303.8	314.9
55°	228.1	238.3	264.1	290.9	302.0
57.5°	208.7	218.0	248.4	277.1	289.1
60°	187.5	199.5	233.7	263.2	276.1
62.5°	167.2	180.1	218.0	249.4	263.2
65°	149.6	162.5	201.3	234.6	249.4
67.5°	126.5	144.1	187.5	218.9	233.7
70°	103.4	127.4	169.9	202.3	216.1
72.5°	85.9	109.0	152.4	184.7	197.6
75°	65.6	91.4	133.9	161.6	169.9
77.5°	48.9	75.7	114.5	128.4	129.3
80°	36.0	58.2	86.8	91.4	95.1
82.5°	24.9	40.6	56.3	61.9	63.7
85°	15.7	24.0	32.3	35.1	35.1
87.5°	8.3	9.2	11.1	11.1	11.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)