

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: P312632

Luminaire Tested: **22FCZ2-24HE-UNV-L83050-RDP-CP187-W2A-U-4000K**

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: P312632  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)  
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-L83050-RDP-CP187-W2A-U-4000K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.187" POLYCARB SHEET  
Light Source: (168) 4000K 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**

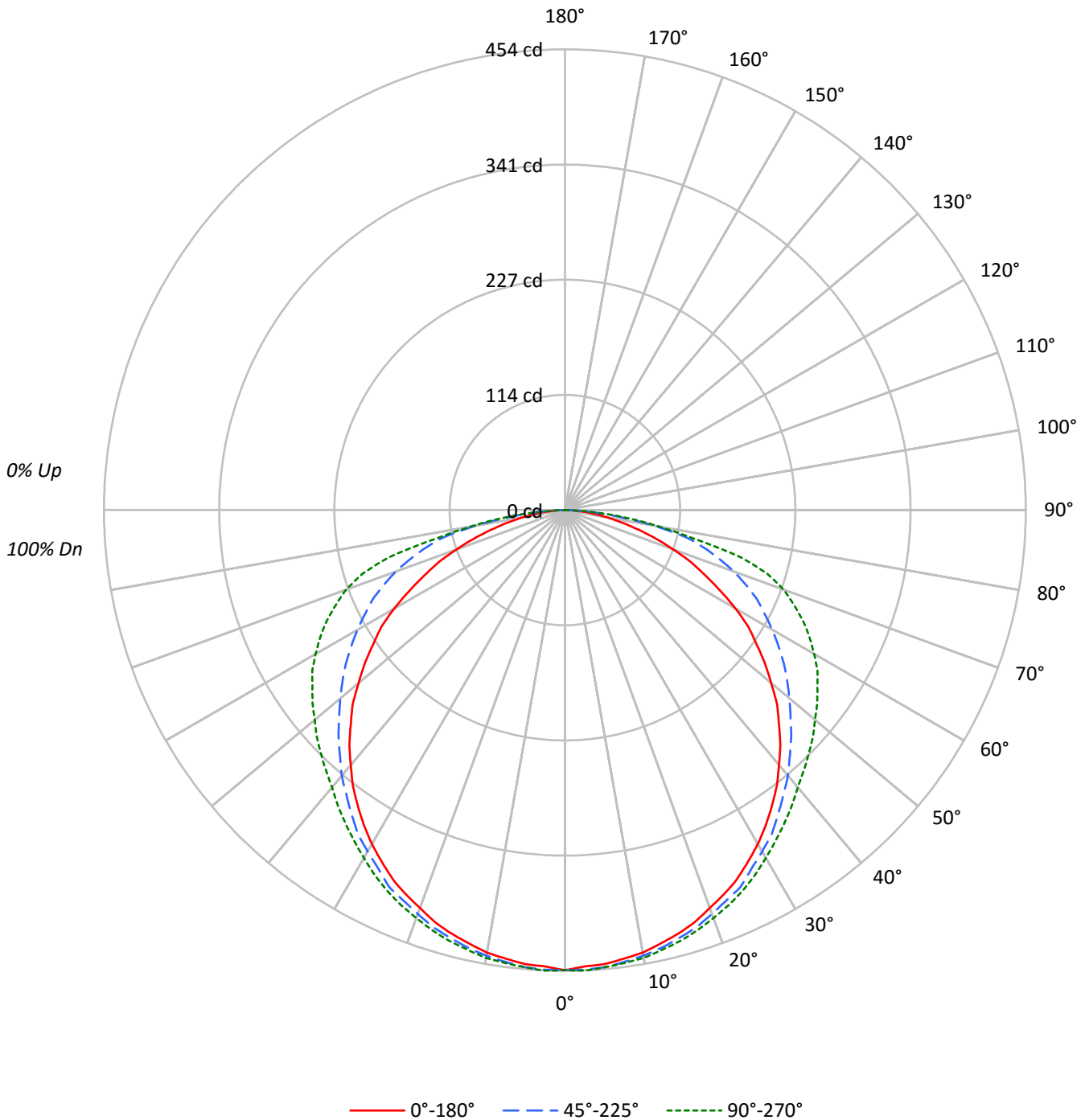
Lumens per Lamp: N/A  
Luminaire Lumens: 1443.0 lumens  
Efficiency: N/A  
Efficacy: 74.8 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
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	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	86	88	86	84	82				
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67				
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55				
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47				
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40				
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35				
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31				
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27				
9	55	41	32	27	53	40	32	27	39	32	26	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°	1213	1222	1222
10°	1210	1218	1224
15°	1204	1215	1224
20°	1195	1213	1225
25°	1192	1216	1229
30°	1181	1207	1230
35°	1168	1203	1238
40°	1152	1201	1253
45°	1135	1200	1293
50°	1111	1209	1346
55°	1081	1235	1424
60°	1046	1269	1525
65°	974	1331	1649
70°	894	1395	1804
75°	784	1468	1865
80°	674	1398	1464
85°	590	1016	1115



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	42.9	3.0
10°-20°	123.1	8.5
20°-30°	187.8	13.0
30°-40°	229.3	15.9
40°-50°	245.2	17.0
50°-60°	236.7	16.4
60°-70°	203.7	14.1
70°-80°	137.9	9.6
80°-90°	36.4	2.5
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°	353.8	24.5
0°-40°	583.1	40.4
0°-60°	1065.0	73.8
0°-90°	1443.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1443.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	453	453	453	453	453	
5°	449	450	452	452	452	43
15°	432	433	436	438	440	122
25°	401	403	410	412	414	185
35°	356	359	366	374	377	223
45°	298	304	315	331	340	230
55°	230	238	263	290	304	206
65°	153	168	209	242	259	152
75°	75	100	141	170	179	81
85°	19	26	33	34	36	22
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	453.3	453.3	453.3	453.3	453.3
2.5°	450.1	451.1	453.3	453.3	454.3
5°	449.0	450.1	452.2	452.2	452.2
7.5°	445.8	446.9	449.0	450.1	450.1
10°	442.7	443.7	445.8	446.9	448.0
12.5°	437.3	438.4	441.6	443.7	443.7
15°	432.0	433.1	436.3	438.4	439.5
17.5°	425.7	427.8	431.0	433.1	434.2
20°	417.2	419.3	423.5	426.7	427.8
22.5°	409.7	411.9	416.1	419.3	421.4
25°	401.3	403.4	409.7	411.9	414.0
27.5°	390.6	392.8	398.1	402.3	405.5
30°	380.0	382.1	388.5	393.8	395.9
32.5°	368.3	371.5	379.0	383.2	386.4
35°	355.6	358.8	366.2	373.7	376.8
37.5°	342.9	346.1	353.5	363.0	367.3
40°	328.0	332.3	341.8	354.5	356.7
42.5°	314.2	319.5	328.0	342.9	348.2
45°	298.3	303.6	315.3	331.2	339.7
47.5°	283.4	288.7	301.5	320.6	331.2
50°	265.4	272.8	288.7	311.0	321.6
52.5°	248.4	254.8	276.0	300.4	313.2
55°	230.4	237.8	263.3	289.8	303.6
57.5°	214.4	220.8	249.5	279.2	295.1
60°	194.3	202.8	235.7	267.5	283.4
62.5°	173.0	185.8	221.9	254.8	271.8
65°	152.9	167.7	209.1	242.0	259.0
67.5°	134.8	150.7	193.2	228.2	244.2
70°	113.6	133.8	177.3	211.2	229.3
72.5°	94.5	116.8	159.2	193.2	209.1
75°	75.4	99.8	141.2	169.8	179.4
77.5°	58.4	81.7	121.0	129.5	130.6
80°	43.5	64.8	90.2	91.3	94.5
82.5°	29.7	45.6	58.4	63.7	64.8
85°	19.1	26.5	32.9	34.0	36.1
87.5°	8.5	9.6	11.7	10.6	10.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)