

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: P308407

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-RDP-CP187-W2A-U-5000K**

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: P308407
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-L82765-RDP-CP187-W2A-U-5000K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 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: 1415.0 lumens
Efficiency: N/A
Efficacy: 73.3 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

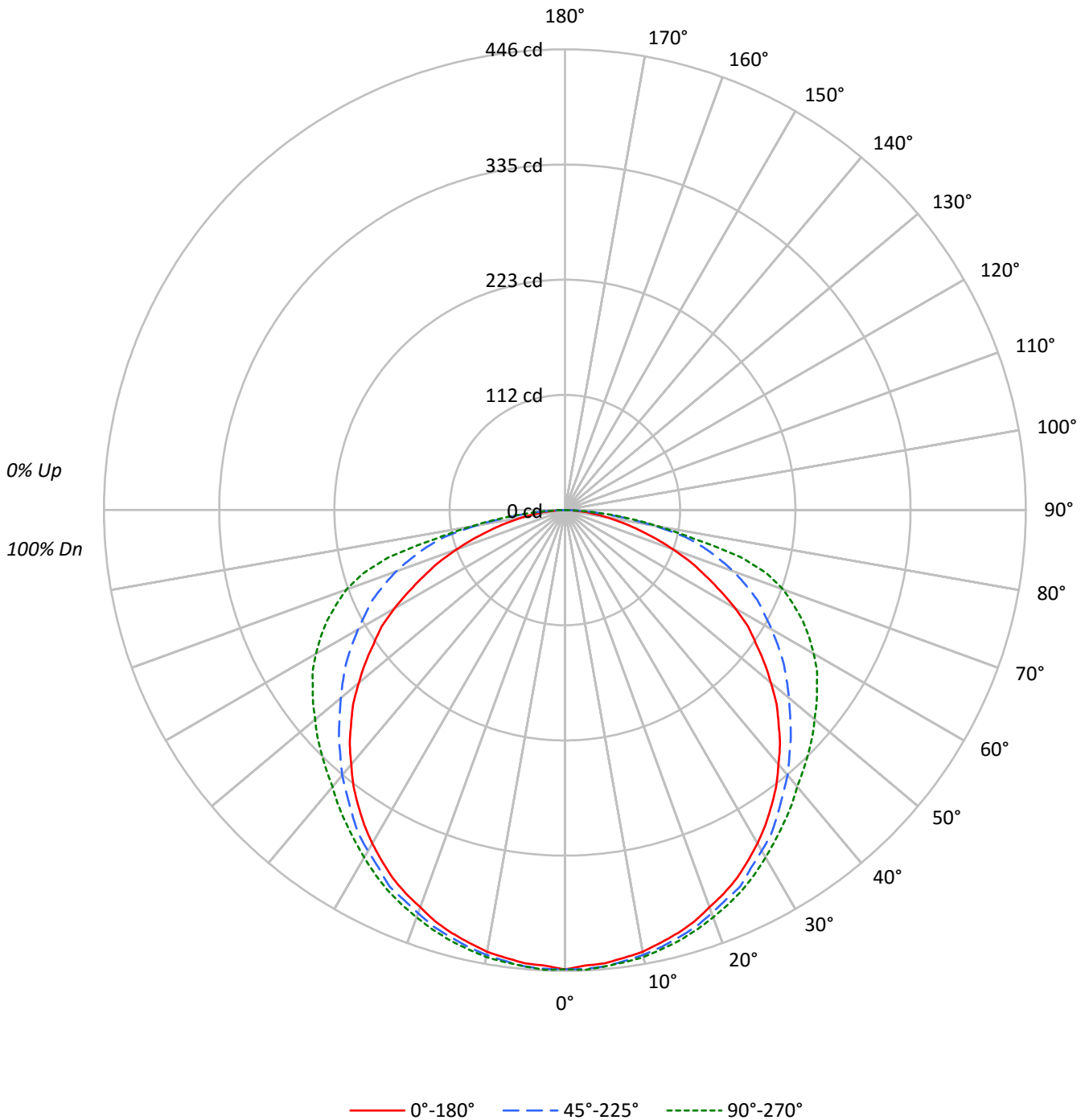
Input Watts (W): 19.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1196	1196	1196
5°	1189	1198	1198
10°	1186	1195	1200
15°	1180	1192	1200
20°	1172	1189	1201
25°	1168	1193	1205
30°	1158	1184	1207
35°	1146	1180	1214
40°	1130	1177	1229
45°	1113	1177	1268
50°	1089	1185	1320
55°	1060	1211	1397
60°	1025	1244	1496
65°	954	1306	1617
70°	876	1367	1769
75°	768	1439	1829
80°	662	1371	1435
85°	577	997	1093



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.0	3.0
10°-20°	120.7	8.5
20°-30°	184.2	13.0
30°-40°	224.9	15.9
40°-50°	240.5	17.0
50°-60°	232.1	16.4
60°-70°	199.8	14.1
70°-80°	135.2	9.6
80°-90°	35.7	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°	346.9	24.5
0°-40°	571.8	40.4
0°-60°	1044.4	73.8
0°-90°	1415.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1415.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	444	444	444	444	444	
5°	440	441	443	443	443	42
15°	424	425	428	430	431	120
25°	394	396	402	404	406	181
35°	349	352	359	366	370	218
45°	292	298	309	325	333	226
55°	226	233	258	284	298	202
65°	150	164	205	237	254	149
75°	74	98	138	166	176	79
85°	19	26	32	33	35	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	444.5	444.5	444.5	444.5	444.5
2.5°	441.4	442.4	444.5	444.5	445.5
5°	440.3	441.4	443.4	443.4	443.4
7.5°	437.2	438.2	440.3	441.4	441.4
10°	434.1	435.1	437.2	438.2	439.3
12.5°	428.9	429.9	433.0	435.1	435.1
15°	423.7	424.7	427.8	429.9	430.9
17.5°	417.4	419.5	422.6	424.7	425.7
20°	409.1	411.2	415.3	418.5	419.5
22.5°	401.8	403.9	408.0	411.2	413.2
25°	393.5	395.6	401.8	403.9	406.0
27.5°	383.1	385.1	390.3	394.5	397.6
30°	372.7	374.7	381.0	386.2	388.3
32.5°	361.2	364.3	371.6	375.8	378.9
35°	348.7	351.8	359.1	366.4	369.5
37.5°	336.2	339.3	346.6	356.0	360.2
40°	321.6	325.8	335.2	347.7	349.8
42.5°	308.1	313.3	321.6	336.2	341.4
45°	292.5	297.7	309.2	324.8	333.1
47.5°	277.9	283.1	295.6	314.4	324.8
50°	260.2	267.5	283.1	305.0	315.4
52.5°	243.6	249.8	270.6	294.6	307.1
55°	225.9	233.2	258.2	284.2	297.7
57.5°	210.3	216.5	244.6	273.8	289.4
60°	190.5	198.8	231.1	262.3	277.9
62.5°	169.7	182.2	217.6	249.8	266.5
65°	149.9	164.5	205.1	237.3	254.0
67.5°	132.2	147.8	189.4	223.8	239.4
70°	111.4	131.2	173.8	207.1	224.8
72.5°	92.6	114.5	156.1	189.4	205.1
75°	73.9	97.8	138.4	166.5	175.9
77.5°	57.3	80.2	118.7	127.0	128.0
80°	42.7	63.5	88.5	89.5	92.6
82.5°	29.1	44.8	57.3	62.5	63.5
85°	18.7	26.0	32.3	33.3	35.4
87.5°	8.3	9.4	11.5	10.4	10.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)