

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: P308412

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-RDP-CP250-W2A-U-3000K**

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: P308412
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-CP250-W2A-U-3000K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.250" 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: 1287.0 lumens
Efficiency: N/A
Efficacy: 68.5 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

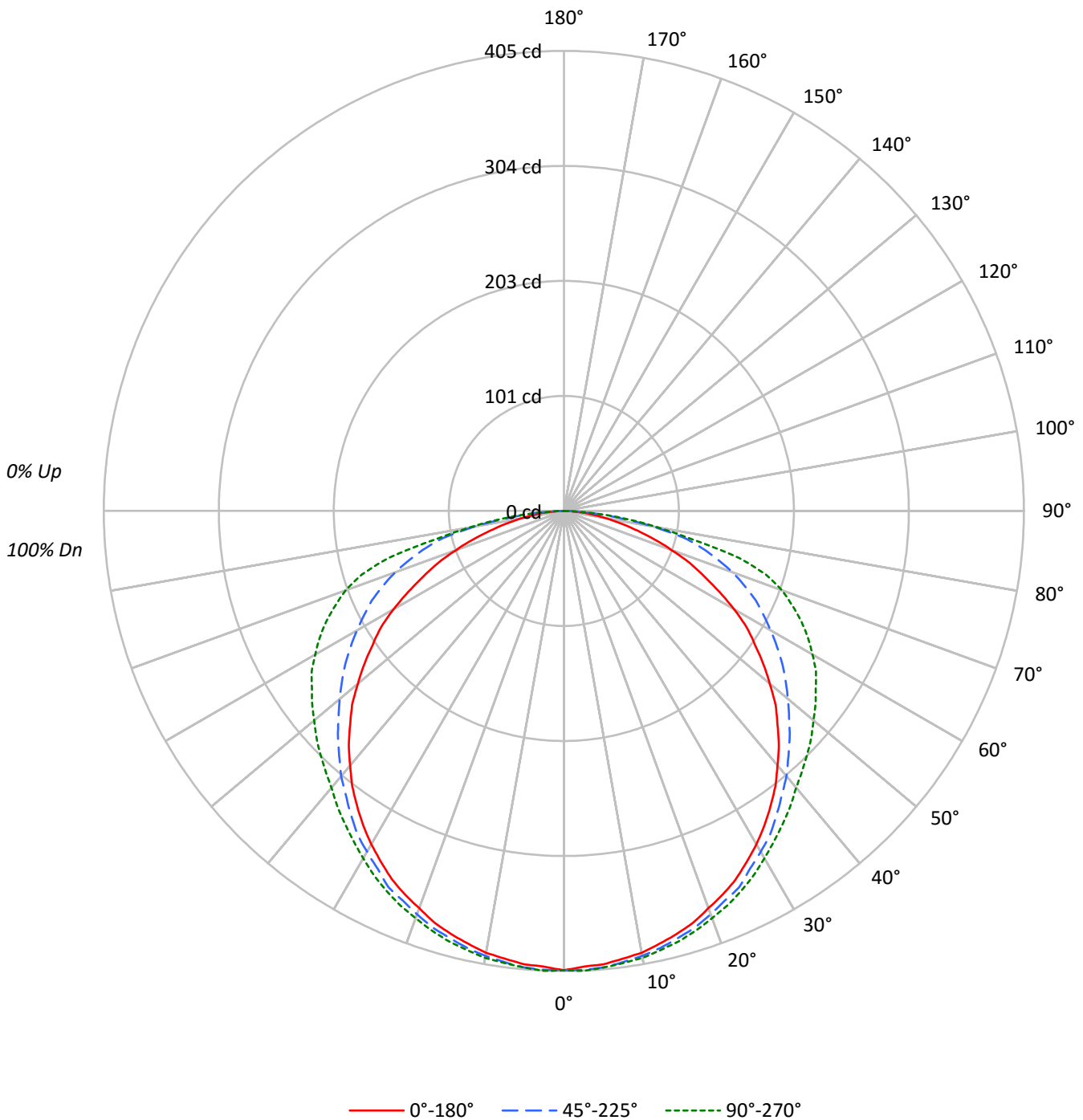
Input Watts (W): 18.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1088	1088	1088
5°	1082	1089	1089
10°	1079	1086	1092
15°	1073	1084	1092
20°	1066	1082	1092
25°	1063	1085	1096
30°	1053	1077	1097
35°	1042	1073	1104
40°	1028	1071	1117
45°	1012	1070	1153
50°	991	1078	1201
55°	964	1102	1270
60°	933	1131	1361
65°	868	1188	1471
70°	797	1244	1609
75°	699	1309	1664
80°	601	1247	1306
85°	525	905	994



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.2	3.0
10°-20°	109.8	8.5
20°-30°	167.5	13.0
30°-40°	204.5	15.9
40°-50°	218.7	17.0
50°-60°	211.1	16.4
60°-70°	181.7	14.1
70°-80°	122.9	9.6
80°-90°	32.4	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°	315.6	24.5
0°-40°	520.1	40.4
0°-60°	949.9	73.8
0°-90°	1287.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1287.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	404	404	404	404	404	
5°	400	401	403	403	403	38
15°	385	386	389	391	392	109
25°	358	360	366	367	369	165
35°	317	320	327	333	336	198
45°	266	271	281	295	303	205
55°	205	212	235	258	271	184
65°	136	150	186	216	231	136
75°	67	89	126	152	160	72
85°	17	24	29	30	32	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	404.3	404.3	404.3	404.3	404.3
2.5°	401.4	402.4	404.3	404.3	405.2
5°	400.5	401.4	403.3	403.3	403.3
7.5°	397.6	398.6	400.5	401.4	401.4
10°	394.8	395.7	397.6	398.6	399.5
12.5°	390.1	391.0	393.9	395.7	395.7
15°	385.3	386.3	389.1	391.0	392.0
17.5°	379.7	381.5	384.4	386.3	387.2
20°	372.1	374.0	377.8	380.6	381.5
22.5°	365.5	367.3	371.1	374.0	375.9
25°	357.9	359.8	365.5	367.3	369.2
27.5°	348.4	350.3	355.0	358.8	361.7
30°	338.9	340.8	346.5	351.3	353.1
32.5°	328.5	331.4	338.0	341.8	344.6
35°	317.2	320.0	326.6	333.3	336.1
37.5°	305.8	308.6	315.3	323.8	327.6
40°	292.6	296.3	304.9	316.2	318.1
42.5°	280.2	285.0	292.6	305.8	310.5
45°	266.0	270.8	281.2	295.4	303.0
47.5°	252.8	257.5	268.9	285.9	295.4
50°	236.7	243.3	257.5	277.4	286.9
52.5°	221.5	227.2	246.2	267.9	279.3
55°	205.4	212.1	234.8	258.5	270.8
57.5°	191.2	196.9	222.5	249.0	263.2
60°	173.3	180.8	210.2	238.6	252.8
62.5°	154.3	165.7	197.9	227.2	242.4
65°	136.3	149.6	186.5	215.9	231.0
67.5°	120.2	134.4	172.3	203.6	217.8
70°	101.3	119.3	158.1	188.4	204.5
72.5°	84.3	104.1	142.0	172.3	186.5
75°	67.2	89.0	125.9	151.5	160.0
77.5°	52.1	72.9	107.9	115.5	116.5
80°	38.8	57.8	80.5	81.4	84.3
82.5°	26.5	40.7	52.1	56.8	57.8
85°	17.0	23.7	29.3	30.3	32.2
87.5°	7.6	8.5	10.4	9.5	9.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)