

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: P308368

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-RDP-CP250-W2A-U-3500K**

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: P308368
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: 22FCZ2-20HE-UNV-L82765-RDP-CP250-W2A-U-3500K
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: 1181.0 lumens
Efficiency: N/A
Efficacy: 70.3 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

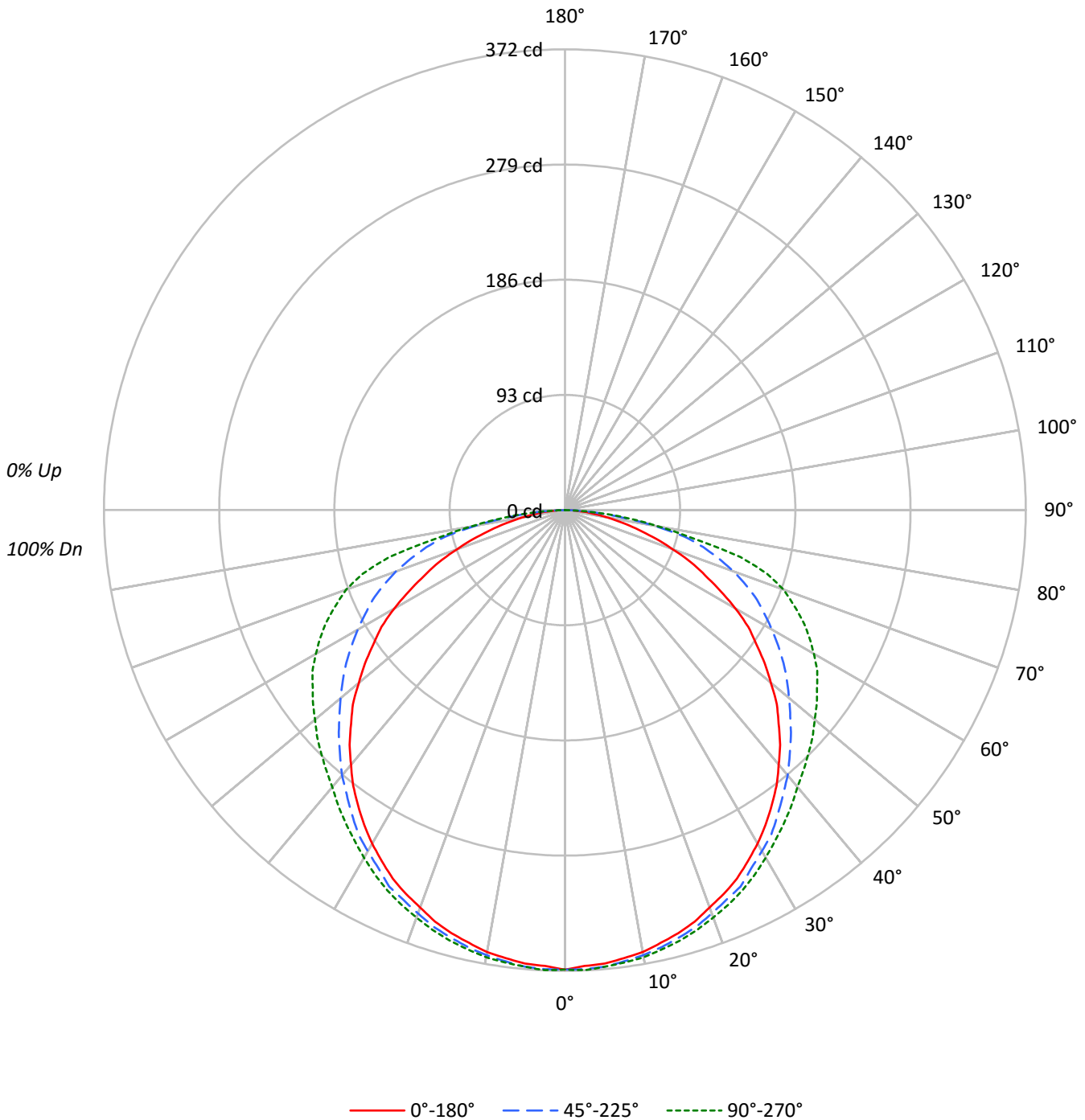
Input Watts (W): 16.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	998	998	998
5°	993	1000	1000
10°	990	997	1002
15°	985	995	1002
20°	978	993	1003
25°	975	996	1006
30°	966	988	1007
35°	956	985	1013
40°	943	983	1025
45°	929	982	1058
50°	909	989	1102
55°	884	1011	1166
60°	856	1038	1249
65°	797	1090	1350
70°	732	1142	1477
75°	642	1201	1526
80°	552	1144	1198
85°	482	831	911



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.1	3.0
10°-20°	100.8	8.5
20°-30°	153.7	13.0
30°-40°	187.7	15.9
40°-50°	200.7	17.0
50°-60°	193.7	16.4
60°-70°	166.8	14.1
70°-80°	112.8	9.6
80°-90°	29.8	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°	289.6	24.5
0°-40°	477.3	40.4
0°-60°	871.7	73.8
0°-90°	1181.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1181.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	371	371	371	371	371	
5°	368	368	370	370	370	35
15°	354	354	357	359	360	100
25°	328	330	335	337	339	151
35°	291	294	300	306	308	182
45°	244	248	258	271	278	188
55°	188	195	216	237	248	169
65°	125	137	171	198	212	124
75°	62	82	116	139	147	66
85°	16	22	27	28	30	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	371.0	371.0	371.0	371.0	371.0
2.5°	368.4	369.2	371.0	371.0	371.8
5°	367.5	368.4	370.1	370.1	370.1
7.5°	364.9	365.8	367.5	368.4	368.4
10°	362.3	363.2	364.9	365.8	366.6
12.5°	357.9	358.8	361.4	363.2	363.2
15°	353.6	354.5	357.1	358.8	359.7
17.5°	348.4	350.1	352.7	354.5	355.3
20°	341.4	343.2	346.6	349.3	350.1
22.5°	335.4	337.1	340.6	343.2	344.9
25°	328.4	330.1	335.4	337.1	338.8
27.5°	319.7	321.5	325.8	329.3	331.9
30°	311.0	312.8	318.0	322.3	324.1
32.5°	301.5	304.1	310.2	313.6	316.2
35°	291.0	293.7	299.7	305.8	308.4
37.5°	280.6	283.2	289.3	297.1	300.6
40°	268.5	271.9	279.7	290.2	291.9
42.5°	257.2	261.5	268.5	280.6	285.0
45°	244.1	248.5	258.0	271.1	278.0
47.5°	232.0	236.3	246.7	262.4	271.1
50°	217.2	223.3	236.3	254.6	263.2
52.5°	203.3	208.5	225.9	245.9	256.3
55°	188.5	194.6	215.5	237.2	248.5
57.5°	175.5	180.7	204.2	228.5	241.5
60°	159.0	165.9	192.9	218.9	232.0
62.5°	141.6	152.0	181.6	208.5	222.4
65°	125.1	137.3	171.2	198.1	212.0
67.5°	110.3	123.4	158.1	186.8	199.8
70°	93.0	109.5	145.1	172.9	187.7
72.5°	77.3	95.6	130.3	158.1	171.2
75°	61.7	81.7	115.5	139.0	146.8
77.5°	47.8	66.9	99.0	106.0	106.9
80°	35.6	53.0	73.8	74.7	77.3
82.5°	24.3	37.4	47.8	52.1	53.0
85°	15.6	21.7	26.9	27.8	29.5
87.5°	7.0	7.8	9.6	8.7	8.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)