

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: P308366

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-RDP-CP250-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: P308366
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-2700K
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: 1109.0 lumens
Efficiency: N/A
Efficacy: 66.4 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

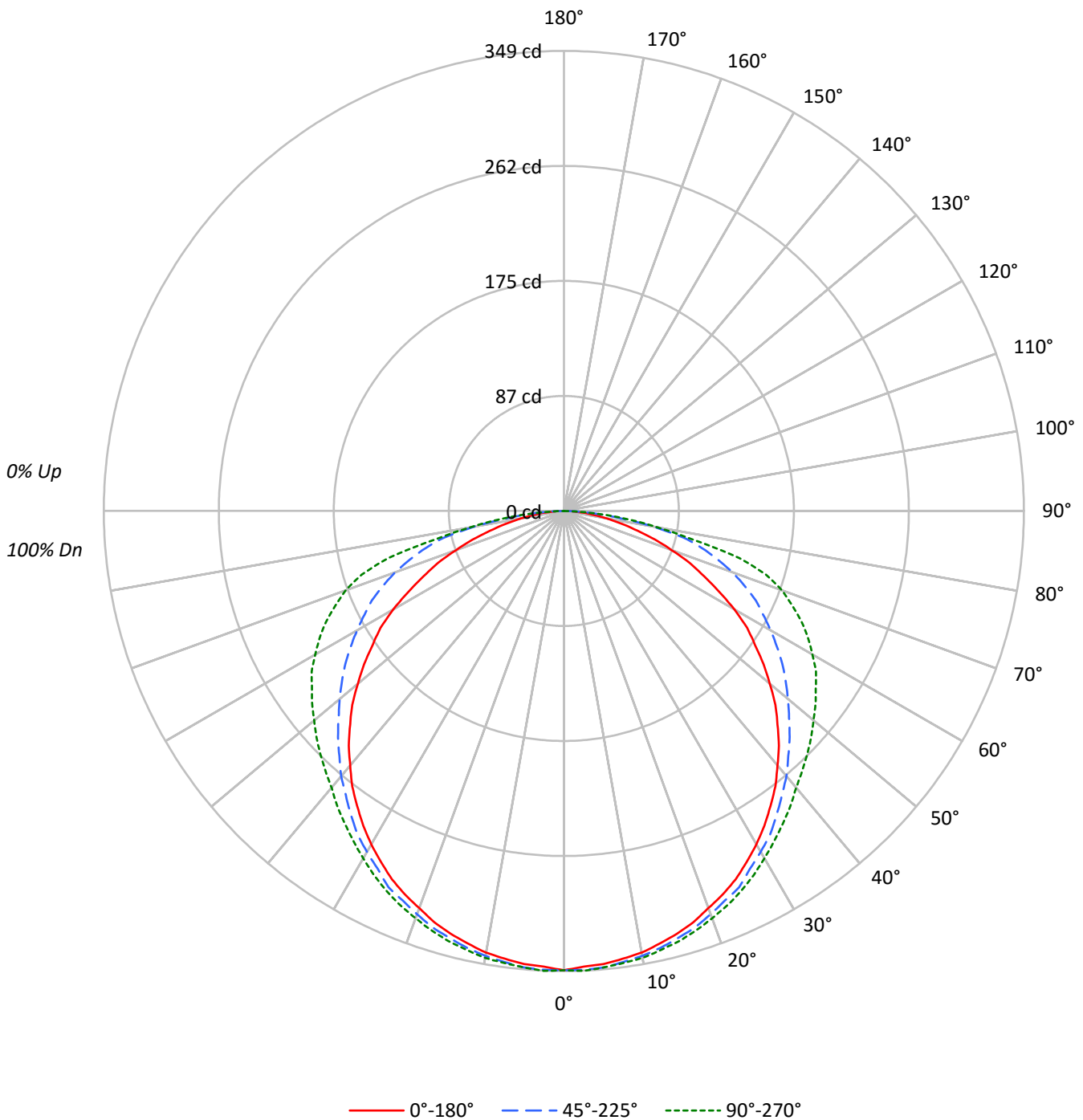
Input Watts (W): 16.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	938	938	938
5°	932	939	939
10°	930	936	941
15°	925	934	941
20°	918	932	942
25°	916	935	945
30°	908	928	946
35°	898	925	951
40°	886	923	963
45°	872	922	994
50°	854	929	1035
55°	830	949	1095
60°	804	975	1172
65°	748	1023	1268
70°	687	1072	1386
75°	602	1128	1434
80°	518	1074	1125
85°	454	781	855



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.0	3.0
10°-20°	94.6	8.5
20°-30°	144.3	13.0
30°-40°	176.3	15.9
40°-50°	188.5	17.0
50°-60°	181.9	16.4
60°-70°	156.6	14.1
70°-80°	105.9	9.6
80°-90°	28.0	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°	271.9	24.5
0°-40°	448.2	40.4
0°-60°	818.5	73.8
0°-90°	1109.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1109.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	348	348	348	348	348	
5°	345	346	348	348	348	33
15°	332	333	335	337	338	94
25°	308	310	315	316	318	142
35°	273	276	282	287	290	171
45°	229	233	242	254	261	177
55°	177	183	202	223	233	159
65°	118	129	161	186	199	117
75°	58	77	108	130	138	62
85°	15	20	25	26	28	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	348.4	348.4	348.4	348.4	348.4
2.5°	345.9	346.7	348.4	348.4	349.2
5°	345.1	345.9	347.5	347.5	347.5
7.5°	342.6	343.5	345.1	345.9	345.9
10°	340.2	341.0	342.6	343.5	344.3
12.5°	336.1	336.9	339.4	341.0	341.0
15°	332.0	332.9	335.3	336.9	337.8
17.5°	327.1	328.8	331.2	332.9	333.7
20°	320.6	322.2	325.5	328.0	328.8
22.5°	314.9	316.5	319.8	322.2	323.9
25°	308.4	310.0	314.9	316.5	318.2
27.5°	300.2	301.9	305.9	309.2	311.6
30°	292.1	293.7	298.6	302.7	304.3
32.5°	283.1	285.5	291.2	294.5	297.0
35°	273.3	275.7	281.5	287.2	289.6
37.5°	263.5	266.0	271.7	279.0	282.3
40°	252.1	255.4	262.7	272.5	274.1
42.5°	241.5	245.6	252.1	263.5	267.6
45°	229.2	233.3	242.3	254.5	261.1
47.5°	217.8	221.9	231.7	246.4	254.5
50°	204.0	209.7	221.9	239.0	247.2
52.5°	190.9	195.8	212.1	230.9	240.7
55°	177.0	182.7	202.3	222.7	233.3
57.5°	164.8	169.7	191.7	214.6	226.8
60°	149.3	155.8	181.1	205.6	217.8
62.5°	133.0	142.8	170.5	195.8	208.9
65°	117.5	128.9	160.7	186.0	199.1
67.5°	103.6	115.8	148.5	175.4	187.6
70°	87.3	102.8	136.2	162.3	176.2
72.5°	72.6	89.7	122.4	148.5	160.7
75°	57.9	76.7	108.5	130.5	137.9
77.5°	44.9	62.8	93.0	99.5	100.3
80°	33.4	49.8	69.3	70.2	72.6
82.5°	22.8	35.1	44.9	48.9	49.8
85°	14.7	20.4	25.3	26.1	27.7
87.5°	6.5	7.3	9.0	8.2	8.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)