

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: P308367

Luminaire Tested: **22FCZ2-20HE-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: P308367
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-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: 1141.0 lumens
Efficiency: N/A
Efficacy: 68.7 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

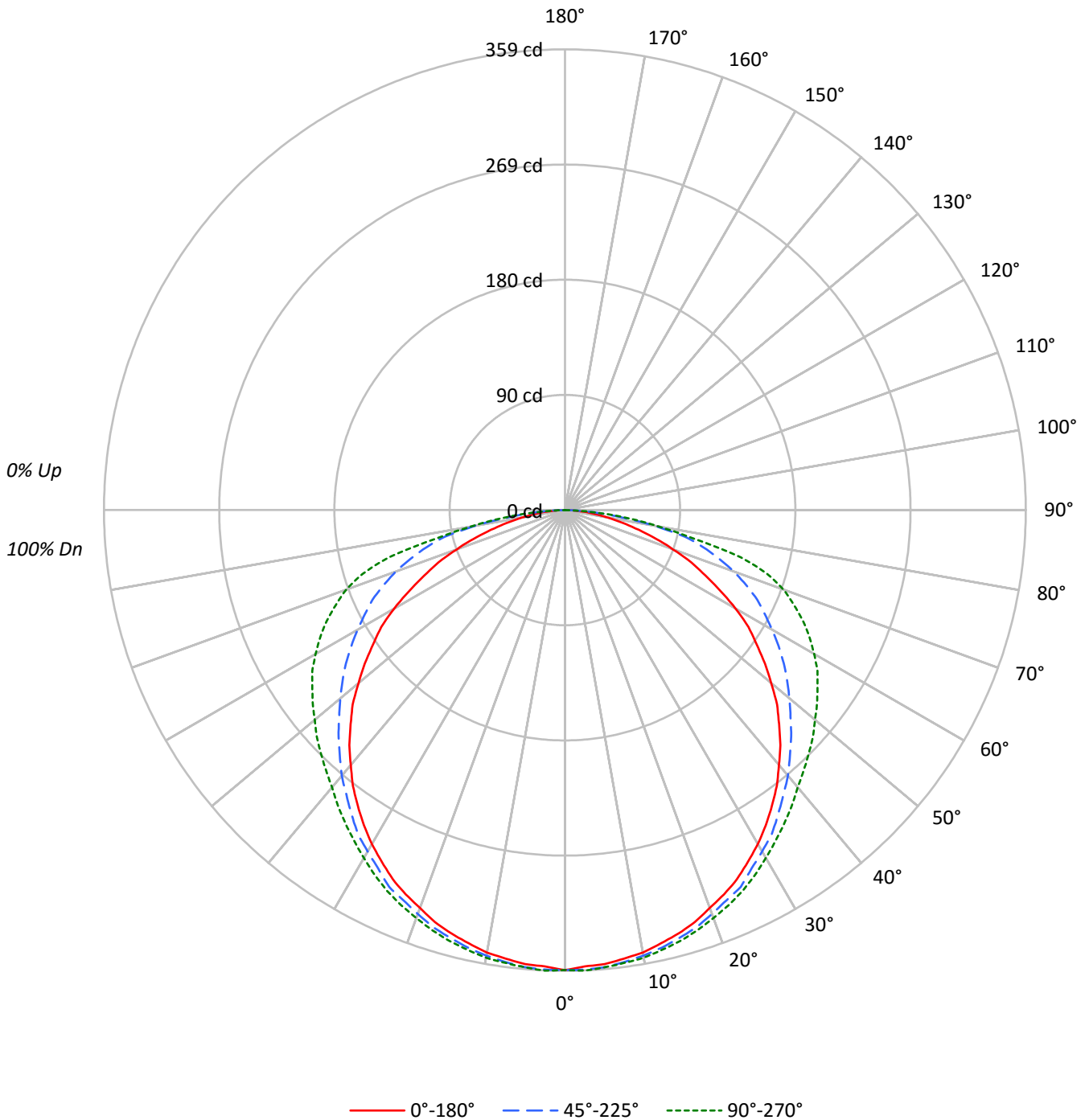
Input Watts (W): 16.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	964	964	964
5°	959	966	966
10°	956	963	968
15°	952	961	968
20°	945	959	969
25°	942	962	972
30°	934	955	973
35°	924	951	979
40°	911	950	991
45°	898	949	1022
50°	878	956	1065
55°	854	977	1126
60°	827	1003	1206
65°	770	1053	1304
70°	707	1103	1426
75°	620	1160	1475
80°	533	1105	1158
85°	466	803	880



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.9	3.0
10°-20°	97.3	8.5
20°-30°	148.5	13.0
30°-40°	181.3	15.9
40°-50°	193.9	17.0
50°-60°	187.1	16.4
60°-70°	161.1	14.1
70°-80°	109.0	9.6
80°-90°	28.8	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°	279.8	24.5
0°-40°	461.1	40.4
0°-60°	842.1	73.8
0°-90°	1141.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1141.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	358	358	358	358	358	
5°	355	356	358	358	358	34
15°	342	342	345	347	348	96
25°	317	319	324	326	327	146
35°	281	284	290	296	298	176
45°	236	240	249	262	269	182
55°	182	188	208	229	240	163
65°	121	133	165	191	205	120
75°	60	79	112	134	142	64
85°	15	21	26	27	28	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	358.4	358.4	358.4	358.4	358.4
2.5°	355.9	356.7	358.4	358.4	359.2
5°	355.1	355.9	357.6	357.6	357.6
7.5°	352.5	353.4	355.1	355.9	355.9
10°	350.0	350.9	352.5	353.4	354.2
12.5°	345.8	346.7	349.2	350.9	350.9
15°	341.6	342.5	345.0	346.7	347.5
17.5°	336.6	338.3	340.8	342.5	343.3
20°	329.9	331.5	334.9	337.4	338.3
22.5°	324.0	325.7	329.0	331.5	333.2
25°	317.3	319.0	324.0	325.7	327.4
27.5°	308.9	310.6	314.8	318.1	320.6
30°	300.5	302.2	307.2	311.4	313.1
32.5°	291.3	293.8	299.7	303.0	305.5
35°	281.2	283.7	289.6	295.5	298.0
37.5°	271.1	273.6	279.5	287.1	290.4
40°	259.4	262.7	270.3	280.3	282.0
42.5°	248.5	252.6	259.4	271.1	275.3
45°	235.9	240.1	249.3	261.9	268.6
47.5°	224.1	228.3	238.4	253.5	261.9
50°	209.8	215.7	228.3	245.9	254.3
52.5°	196.4	201.4	218.2	237.5	247.6
55°	182.1	188.0	208.2	229.1	240.1
57.5°	169.6	174.6	197.3	220.8	233.3
60°	153.6	160.3	186.3	211.5	224.1
62.5°	136.8	146.9	175.4	201.4	214.9
65°	120.9	132.6	165.4	191.4	204.8
67.5°	106.6	119.2	152.8	180.5	193.1
70°	89.8	105.8	140.2	167.0	181.3
72.5°	74.7	92.3	125.9	152.8	165.4
75°	59.6	78.9	111.6	134.3	141.9
77.5°	46.2	64.6	95.7	102.4	103.2
80°	34.4	51.2	71.3	72.2	74.7
82.5°	23.5	36.1	46.2	50.4	51.2
85°	15.1	21.0	26.0	26.9	28.5
87.5°	6.7	7.6	9.2	8.4	8.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)