

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: P308333

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-RDP-CA08-W2A-U-4000K**

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: P308333
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-CA08-W2A-U-4000K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.08" ACRYLIC 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: 1300.0 lumens
Efficiency: N/A
Efficacy: 76.9 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

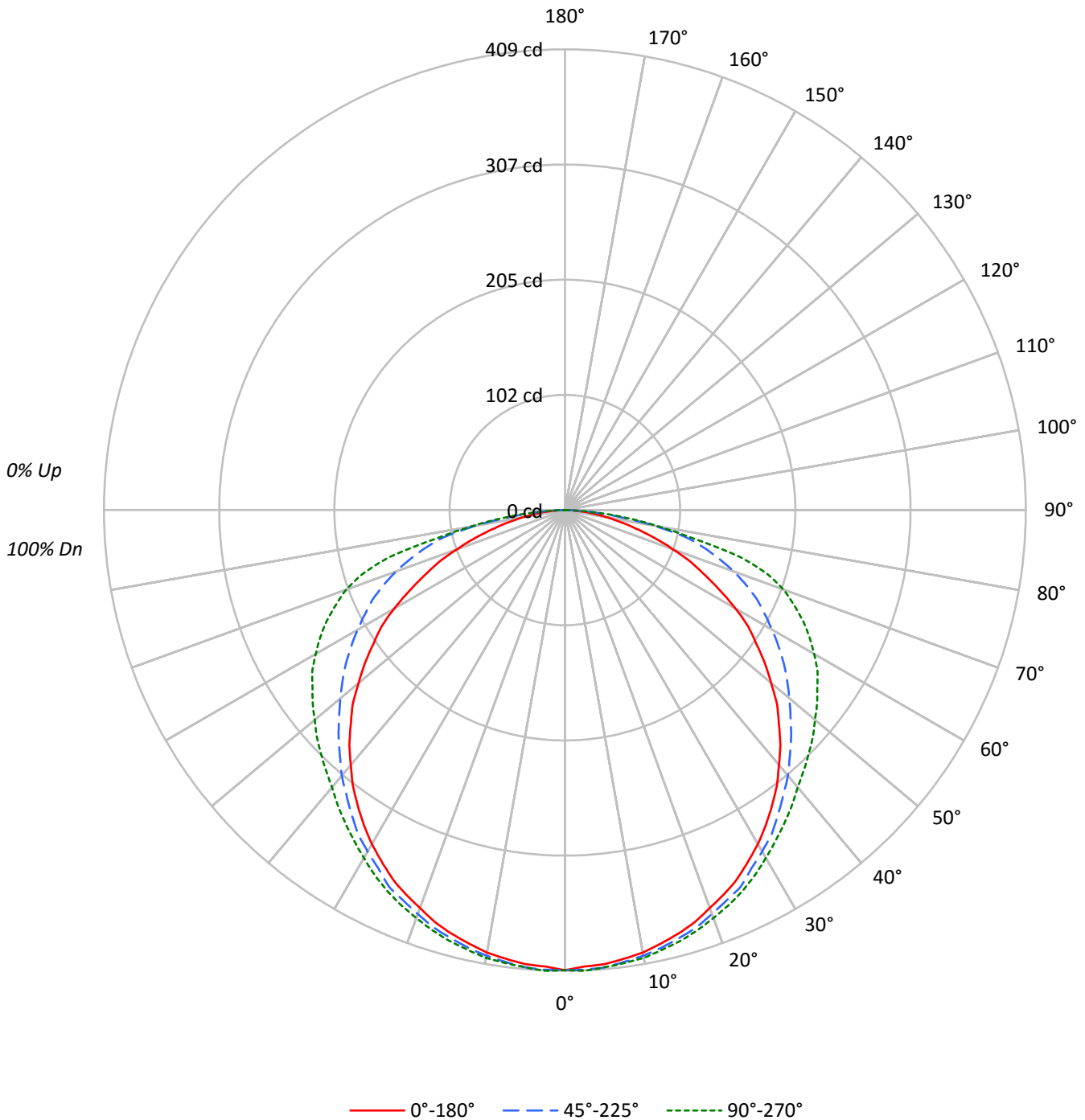
Input Watts (W): 16.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1099	1099	1099
5°	1093	1100	1100
10°	1090	1098	1103
15°	1084	1095	1103
20°	1076	1093	1104
25°	1073	1096	1107
30°	1064	1088	1108
35°	1053	1084	1115
40°	1038	1082	1129
45°	1023	1081	1165
50°	1001	1089	1213
55°	974	1113	1283
60°	942	1143	1374
65°	877	1200	1486
70°	805	1257	1626
75°	706	1323	1680
80°	607	1260	1319
85°	531	914	1003



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.6	3.0
10°-20°	110.9	8.5
20°-30°	169.2	13.0
30°-40°	206.6	15.9
40°-50°	220.9	17.0
50°-60°	213.2	16.4
60°-70°	183.6	14.1
70°-80°	124.2	9.6
80°-90°	32.8	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°	318.7	24.5
0°-40°	525.3	40.4
0°-60°	959.5	73.8
0°-90°	1300.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1300.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	408	408	408	408	408	
5°	404	406	407	407	407	38
15°	389	390	393	395	396	110
25°	362	363	369	371	373	166
35°	320	323	330	337	340	200
45°	269	274	284	298	306	207
55°	208	214	237	261	274	186
65°	138	151	188	218	233	137
75°	68	90	127	153	162	73
85°	17	24	30	31	32	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	408.4	408.4	408.4	408.4	408.4
2.5°	405.5	406.4	408.4	408.4	409.3
5°	404.5	405.5	407.4	407.4	407.4
7.5°	401.7	402.6	404.5	405.5	405.5
10°	398.8	399.7	401.7	402.6	403.6
12.5°	394.0	395.0	397.8	399.7	399.7
15°	389.2	390.2	393.1	395.0	395.9
17.5°	383.5	385.4	388.3	390.2	391.1
20°	375.8	377.8	381.6	384.4	385.4
22.5°	369.1	371.1	374.9	377.8	379.7
25°	361.5	363.4	369.1	371.1	373.0
27.5°	351.9	353.8	358.6	362.4	365.3
30°	342.4	344.3	350.0	354.8	356.7
32.5°	331.8	334.7	341.4	345.2	348.1
35°	320.4	323.2	329.9	336.6	339.5
37.5°	308.9	311.8	318.5	327.1	330.9
40°	295.5	299.3	307.9	319.4	321.3
42.5°	283.1	287.9	295.5	308.9	313.7
45°	268.7	273.5	284.0	298.4	306.0
47.5°	255.3	260.1	271.6	288.8	298.4
50°	239.1	245.8	260.1	280.2	289.8
52.5°	223.8	229.5	248.6	270.6	282.1
55°	207.5	214.2	237.2	261.1	273.5
57.5°	193.2	198.9	224.7	251.5	265.9
60°	175.0	182.7	212.3	241.0	255.3
62.5°	155.9	167.4	199.9	229.5	244.8
65°	137.7	151.1	188.4	218.0	233.3
67.5°	121.5	135.8	174.1	205.6	220.0
70°	102.3	120.5	159.7	190.3	206.6
72.5°	85.1	105.2	143.4	174.1	188.4
75°	67.9	89.9	127.2	153.0	161.6
77.5°	52.6	73.6	109.0	116.7	117.6
80°	39.2	58.3	81.3	82.2	85.1
82.5°	26.8	41.1	52.6	57.4	58.3
85°	17.2	23.9	29.6	30.6	32.5
87.5°	7.7	8.6	10.5	9.6	9.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)