

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: P308079

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-HRP-CP125-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: P308079
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-22)
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-HRP-CP125-W2A-U-3000K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" 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: 1394.0 lumens
Efficiency: N/A
Efficacy: 84.0 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

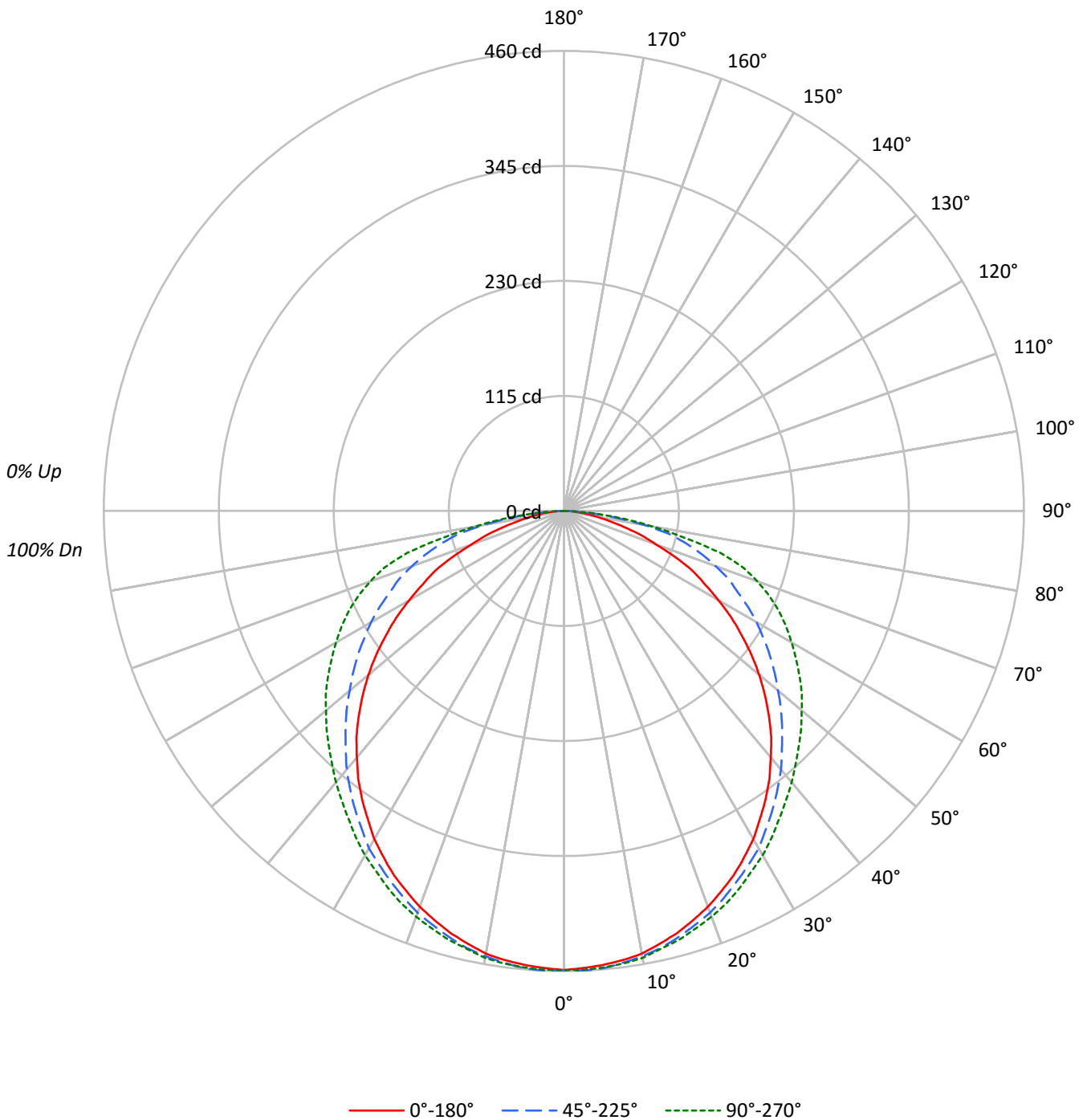
Input Watts (W): 16.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1235	1235	1235
5°	1230	1240	1237
10°	1228	1235	1240
15°	1217	1230	1237
20°	1206	1224	1237
25°	1193	1214	1235
30°	1178	1211	1235
35°	1155	1196	1234
40°	1130	1186	1245
45°	1104	1175	1265
50°	1068	1171	1299
55°	1019	1180	1349
60°	961	1197	1415
65°	907	1221	1512
70°	775	1273	1619
75°	649	1326	1682
80°	532	1282	1404
85°	460	951	1031



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.5	3.1
10°-20°	124.4	8.9
20°-30°	188.6	13.5
30°-40°	227.7	16.3
40°-50°	239.3	17.2
50°-60°	225.1	16.2
60°-70°	187.7	13.5
70°-80°	124.4	8.9
80°-90°	33.2	2.4
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°	356.6	25.6
0°-40°	584.3	41.9
0°-60°	1048.7	75.2
0°-90°	1394.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1394.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	459	459	459	459	459	
5°	456	456	459	459	458	43
15°	437	439	441	443	444	123
25°	402	404	409	414	416	185
35°	352	355	364	372	376	220
45°	290	295	309	324	332	224
55°	217	227	252	277	288	194
65°	142	155	192	223	237	139
75°	62	87	128	154	162	68
85°	15	23	31	33	33	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	459.0	459.0	459.0	459.0	459.0
2.5°	457.3	458.1	459.9	459.9	459.0
5°	455.5	456.4	459.0	459.0	458.1
7.5°	452.9	453.8	455.5	457.3	456.4
10°	449.4	450.2	452.0	453.8	453.8
12.5°	443.2	444.1	447.6	448.5	448.5
15°	437.0	438.8	441.4	443.2	444.1
17.5°	429.1	430.9	434.4	437.9	437.9
20°	421.2	423.0	427.4	430.9	431.8
22.5°	411.5	414.2	418.6	423.0	424.7
25°	401.9	404.5	408.9	414.2	415.9
27.5°	390.4	393.1	399.2	405.4	406.3
30°	379.0	381.6	389.6	394.8	397.5
32.5°	364.9	368.5	376.4	384.3	386.9
35°	351.7	355.3	364.1	372.0	375.5
37.5°	337.7	341.2	350.9	360.5	364.9
40°	321.8	326.2	337.7	348.2	354.4
42.5°	306.9	311.3	322.7	336.8	343.0
45°	290.2	294.6	308.7	324.5	332.4
47.5°	272.6	277.9	294.6	313.9	321.8
50°	255.0	261.2	279.6	301.6	310.4
52.5°	236.5	244.5	265.6	289.3	299.9
55°	217.2	226.9	251.5	277.0	287.6
57.5°	198.7	207.5	236.5	263.8	275.2
60°	178.5	189.9	222.5	250.6	262.9
62.5°	159.2	171.5	207.5	237.4	250.6
65°	142.5	154.8	191.7	223.4	237.4
67.5°	120.5	137.2	178.5	208.4	222.5
70°	98.5	121.4	161.8	192.6	205.8
72.5°	81.8	103.8	145.1	175.9	188.2
75°	62.4	87.1	127.5	153.9	161.8
77.5°	46.6	72.1	109.0	122.2	123.1
80°	34.3	55.4	82.7	87.1	90.6
82.5°	23.7	38.7	53.6	58.9	60.7
85°	14.9	22.9	30.8	33.4	33.4
87.5°	7.9	8.8	10.6	10.6	10.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)