

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: P308069

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-HRP-CA125-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: P308069
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-CA125-W2A-U-2700K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" 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: 1382.0 lumens
Efficiency: N/A
Efficacy: 82.8 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

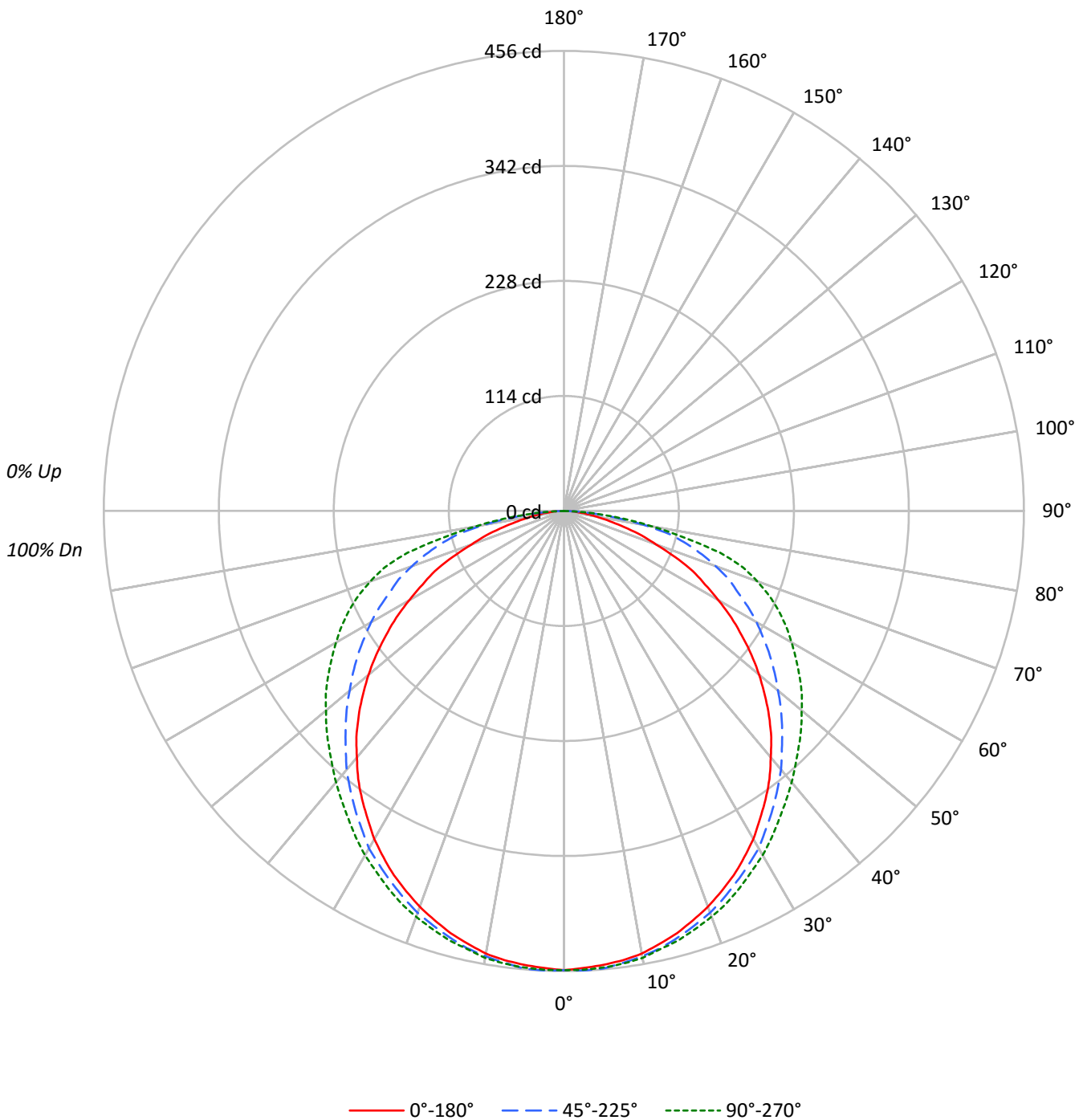
Input Watts (W): 16.7
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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CATALOG NUMBER: 22FC22-20HE-UNV-L82765-HRP-CA125-W2A-U-2700K

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	84	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°	1225	1225	1225
5°	1220	1229	1227
10°	1217	1224	1229
15°	1207	1219	1227
20°	1196	1213	1226
25°	1183	1204	1224
30°	1167	1200	1225
35°	1146	1186	1223
40°	1121	1176	1234
45°	1095	1165	1254
50°	1058	1160	1288
55°	1010	1170	1338
60°	953	1187	1403
65°	899	1210	1499
70°	768	1262	1605
75°	644	1314	1668
80°	527	1269	1392
85°	457	942	1022



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.1	3.1
10°-20°	123.4	8.9
20°-30°	187.0	13.5
30°-40°	225.8	16.3
40°-50°	237.2	17.2
50°-60°	223.2	16.2
60°-70°	186.1	13.5
70°-80°	123.3	8.9
80°-90°	32.9	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°	353.5	25.6
0°-40°	579.3	41.9
0°-60°	1039.7	75.2
0°-90°	1382.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1382.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	455	455	455	455	455	
5°	452	452	455	455	454	43
15°	433	435	438	439	440	122
25°	398	401	405	411	412	183
35°	349	352	361	369	372	218
45°	288	292	306	322	330	222
55°	215	225	249	275	285	193
65°	141	153	190	221	235	137
75°	62	86	126	153	160	67
85°	15	23	30	33	33	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	455.1	455.1	455.1	455.1	455.1
2.5°	453.3	454.2	455.9	455.9	455.1
5°	451.6	452.5	455.1	455.1	454.2
7.5°	449.0	449.8	451.6	453.3	452.5
10°	445.5	446.4	448.1	449.8	449.8
12.5°	439.4	440.3	443.7	444.6	444.6
15°	433.3	435.0	437.6	439.4	440.3
17.5°	425.4	427.2	430.7	434.2	434.2
20°	417.6	419.3	423.7	427.2	428.1
22.5°	408.0	410.6	415.0	419.3	421.1
25°	398.4	401.0	405.4	410.6	412.4
27.5°	387.1	389.7	395.8	401.9	402.8
30°	375.7	378.4	386.2	391.4	394.1
32.5°	361.8	365.3	373.1	381.0	383.6
35°	348.7	352.2	360.9	368.8	372.3
37.5°	334.8	338.3	347.8	357.4	361.8
40°	319.1	323.4	334.8	345.2	351.3
42.5°	304.3	308.6	319.9	333.9	340.0
45°	287.7	292.1	306.0	321.7	329.5
47.5°	270.3	275.5	292.1	311.2	319.1
50°	252.8	258.9	277.2	299.0	307.7
52.5°	234.5	242.4	263.3	286.8	297.3
55°	215.3	224.9	249.3	274.6	285.1
57.5°	197.0	205.7	234.5	261.5	272.9
60°	177.0	188.3	220.6	248.5	260.7
62.5°	157.8	170.0	205.7	235.4	248.5
65°	141.2	153.4	190.1	221.4	235.4
67.5°	119.4	136.0	177.0	206.6	220.6
70°	97.6	120.3	160.4	190.9	204.0
72.5°	81.1	102.9	143.8	174.4	186.6
75°	61.9	86.3	126.4	152.6	160.4
77.5°	46.2	71.5	108.1	121.2	122.1
80°	34.0	54.9	81.9	86.3	89.8
82.5°	23.5	38.4	53.2	58.4	60.2
85°	14.8	22.7	30.5	33.1	33.1
87.5°	7.8	8.7	10.5	10.5	10.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)