

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: P308083

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-HRP-CP125-W2A-U-5000K**

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: P308083
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-5000K
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: 1520.0 lumens
Efficiency: N/A
Efficacy: 88.9 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

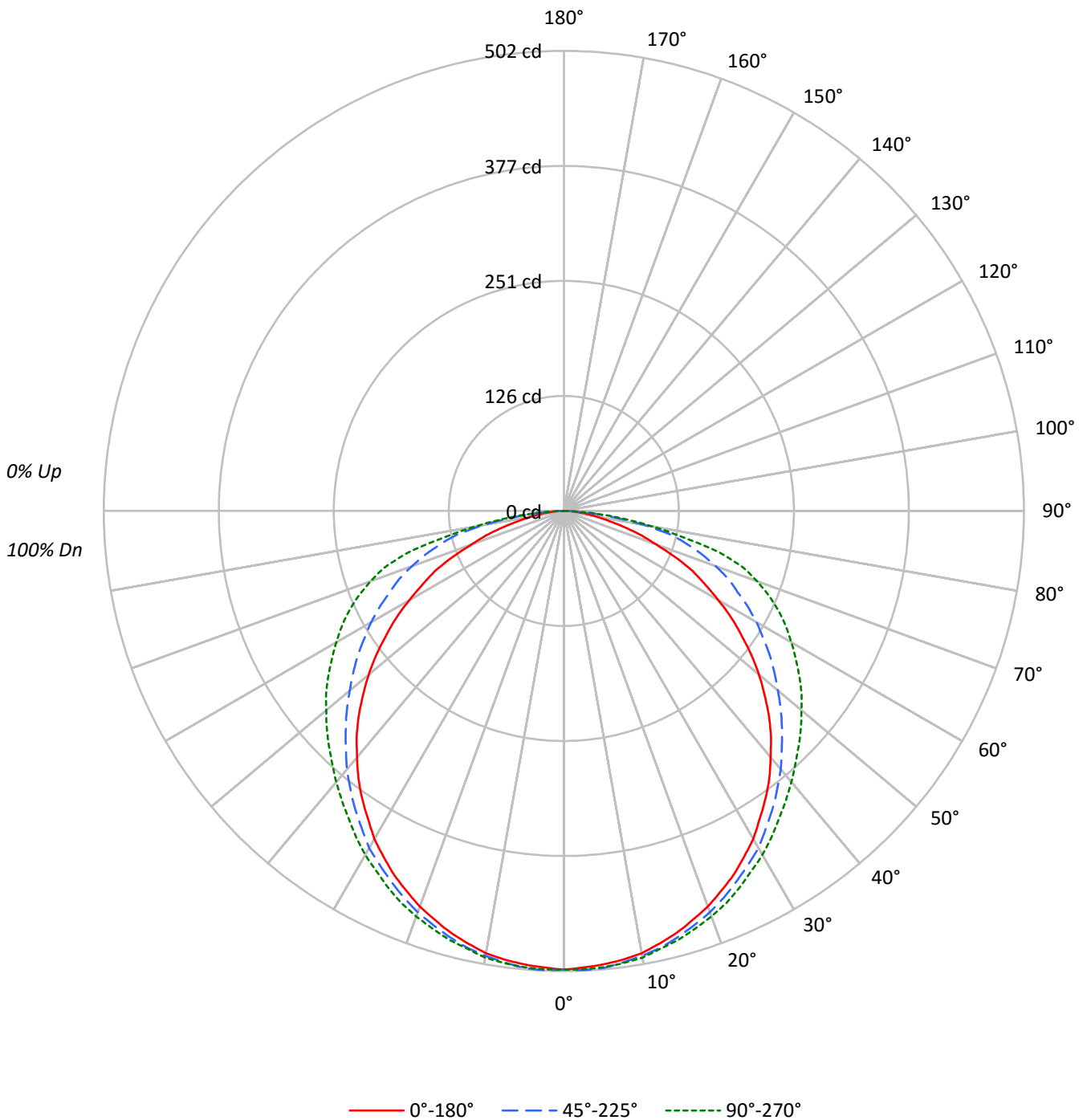
Input Watts (W): 17.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	87	84	82					82			
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68					68			
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56					56			
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48					48			
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41					41			
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36					36			
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31					31			
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28					28			
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27	25					25			
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23					23			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1347	1347	1347
5°	1342	1352	1350
10°	1339	1347	1352
15°	1327	1341	1349
20°	1315	1334	1348
25°	1301	1324	1347
30°	1284	1320	1347
35°	1260	1304	1345
40°	1233	1293	1357
45°	1204	1281	1379
50°	1164	1276	1417
55°	1111	1286	1471
60°	1047	1306	1543
65°	989	1331	1649
70°	845	1388	1766
75°	708	1445	1834
80°	580	1396	1531
85°	503	1037	1124



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.4	3.1
10°-20°	135.7	8.9
20°-30°	205.6	13.5
30°-40°	248.3	16.3
40°-50°	260.9	17.2
50°-60°	245.5	16.2
60°-70°	204.7	13.5
70°-80°	135.6	8.9
80°-90°	36.1	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°	388.8	25.6
0°-40°	637.1	41.9
0°-60°	1143.5	75.2
0°-90°	1520.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1520.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	500	500	500	500	500	
5°	497	498	500	500	500	47
15°	476	478	481	483	484	134
25°	438	441	446	452	454	202
35°	384	387	397	406	409	240
45°	316	321	337	354	362	244
55°	237	247	274	302	314	212
65°	155	169	209	244	259	151
75°	68	95	139	168	176	74
85°	16	25	34	36	36	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	500.5	500.5	500.5	500.5	500.5
2.5°	498.6	499.6	501.5	501.5	500.5
5°	496.7	497.6	500.5	500.5	499.6
7.5°	493.8	494.8	496.7	498.6	497.6
10°	490.0	490.9	492.8	494.8	494.8
12.5°	483.3	484.2	488.1	489.0	489.0
15°	476.5	478.5	481.3	483.3	484.2
17.5°	467.9	469.8	473.7	477.5	477.5
20°	459.3	461.2	466.0	469.8	470.8
22.5°	448.7	451.6	456.4	461.2	463.1
25°	438.2	441.1	445.9	451.6	453.5
27.5°	425.7	428.6	435.3	442.0	443.0
30°	413.3	416.1	424.8	430.5	433.4
32.5°	397.9	401.8	410.4	419.0	421.9
35°	383.5	387.4	397.0	405.6	409.4
37.5°	368.2	372.0	382.6	393.1	397.9
40°	350.9	355.7	368.2	379.7	386.4
42.5°	334.6	339.4	351.9	367.2	374.0
45°	316.4	321.2	336.6	353.8	362.4
47.5°	297.2	303.0	321.2	342.3	350.9
50°	278.1	284.8	304.9	328.9	338.5
52.5°	257.9	266.6	289.6	315.5	327.0
55°	236.8	247.4	274.2	302.0	313.5
57.5°	216.7	226.3	257.9	287.7	300.1
60°	194.6	207.1	242.6	273.3	286.7
62.5°	173.6	187.0	226.3	258.9	273.3
65°	155.3	168.8	209.0	243.5	258.9
67.5°	131.4	149.6	194.6	227.2	242.6
70°	107.4	132.3	176.4	210.0	224.4
72.5°	89.2	113.1	158.2	191.8	205.2
75°	68.1	94.9	139.0	167.8	176.4
77.5°	50.8	78.6	118.9	133.3	134.2
80°	37.4	60.4	90.1	94.9	98.8
82.5°	25.9	42.2	58.5	64.2	66.2
85°	16.3	24.9	33.6	36.4	36.4
87.5°	8.6	9.6	11.5	11.5	11.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)