

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: P308086

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-HRP-CP125-W2A-U-6500K**

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: P308086
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-6500K
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: 1544.0 lumens
Efficiency: N/A
Efficacy: 88.7 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

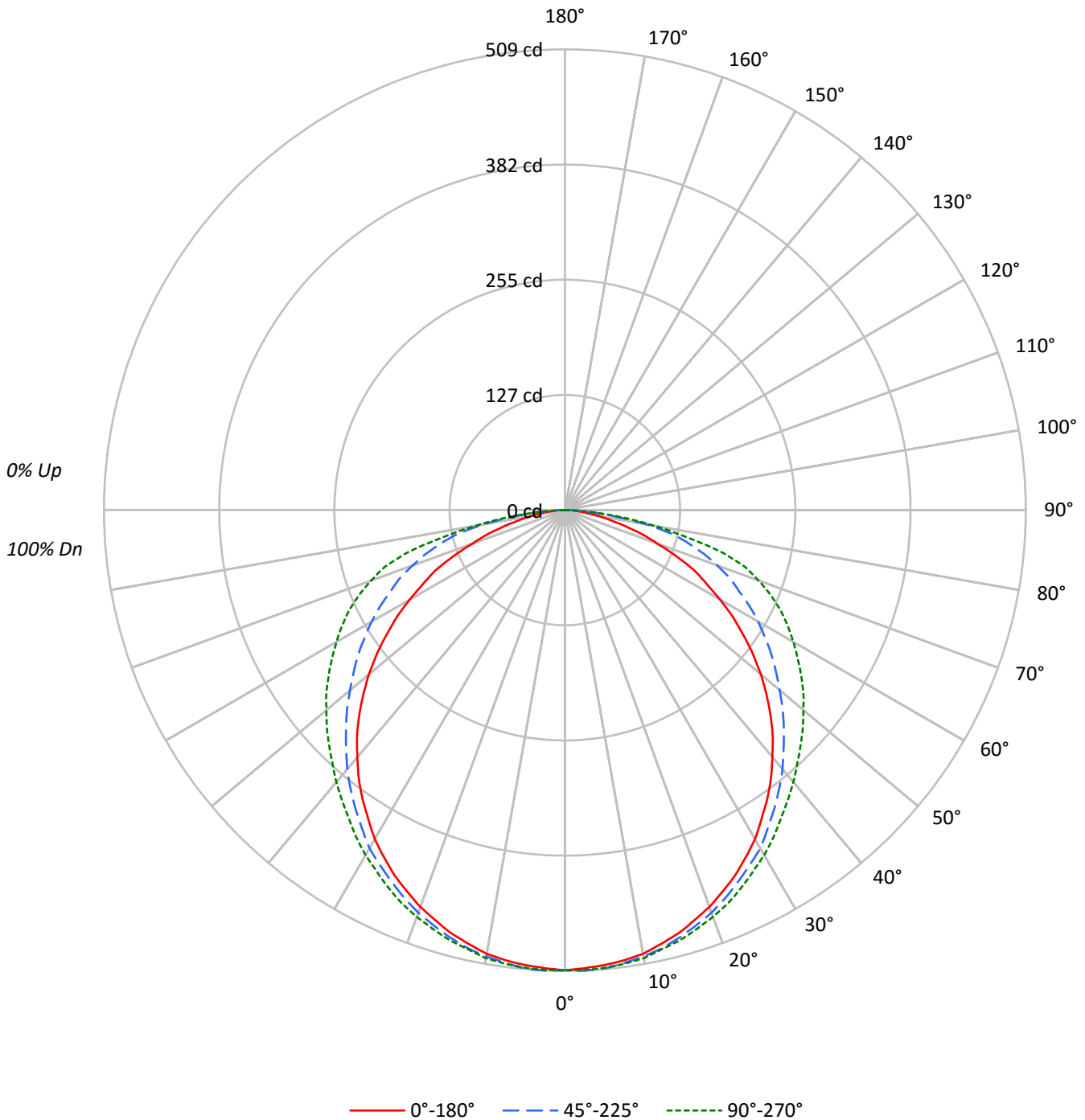
Input Watts (W): 17.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1368	1368	1368
5°	1363	1373	1371
10°	1360	1368	1373
15°	1349	1362	1370
20°	1336	1356	1369
25°	1322	1345	1368
30°	1304	1341	1368
35°	1280	1325	1366
40°	1252	1314	1379
45°	1223	1301	1401
50°	1183	1297	1439
55°	1129	1307	1494
60°	1064	1326	1567
65°	1005	1352	1675
70°	858	1410	1793
75°	719	1468	1863
80°	589	1420	1554
85°	513	1053	1142



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.2	3.1
10°-20°	137.8	8.9
20°-30°	208.9	13.5
30°-40°	252.2	16.3
40°-50°	265.0	17.2
50°-60°	249.4	16.2
60°-70°	207.9	13.5
70°-80°	137.8	8.9
80°-90°	36.7	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°	394.9	25.6
0°-40°	647.1	41.9
0°-60°	1161.6	75.2
0°-90°	1544.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1544.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	508	508	508	508	508	
5°	504	506	508	508	507	48
15°	484	486	489	491	492	136
25°	445	448	453	459	461	205
35°	390	394	403	412	416	244
45°	321	326	342	359	368	248
55°	241	251	279	307	318	215
65°	158	171	212	247	263	154
75°	69	96	141	170	179	75
85°	17	25	34	37	37	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	508.4	508.4	508.4	508.4	508.4
2.5°	506.5	507.4	509.4	509.4	508.4
5°	504.5	505.5	508.4	508.4	507.4
7.5°	501.6	502.6	504.5	506.5	505.5
10°	497.7	498.7	500.6	502.6	502.6
12.5°	490.9	491.9	495.8	496.7	496.7
15°	484.1	486.0	488.9	490.9	491.9
17.5°	475.3	477.3	481.2	485.0	485.0
20°	466.5	468.5	473.4	477.3	478.2
22.5°	455.8	458.7	463.6	468.5	470.4
25°	445.1	448.0	452.9	458.7	460.7
27.5°	432.5	435.4	442.2	449.0	450.0
30°	419.8	422.7	431.5	437.3	440.2
32.5°	404.2	408.1	416.9	425.6	428.6
35°	389.6	393.5	403.2	412.0	415.9
37.5°	374.0	377.9	388.6	399.3	404.2
40°	356.5	361.3	374.0	385.7	392.5
42.5°	339.9	344.8	357.5	373.0	379.9
45°	321.4	326.3	341.9	359.4	368.2
47.5°	301.9	307.8	326.3	347.7	356.5
50°	282.5	289.3	309.7	334.1	343.8
52.5°	262.0	270.8	294.1	320.4	332.1
55°	240.6	251.3	278.6	306.8	318.5
57.5°	220.1	229.9	262.0	292.2	304.9
60°	197.7	210.4	246.4	277.6	291.2
62.5°	176.3	189.9	229.9	263.0	277.6
65°	157.8	171.4	212.3	247.4	263.0
67.5°	133.4	151.9	197.7	230.8	246.4
70°	109.1	134.4	179.2	213.3	227.9
72.5°	90.6	114.9	160.7	194.8	208.4
75°	69.2	96.4	141.2	170.4	179.2
77.5°	51.6	79.9	120.8	135.4	136.4
80°	38.0	61.4	91.6	96.4	100.3
82.5°	26.3	42.9	59.4	65.3	67.2
85°	16.6	25.3	34.1	37.0	37.0
87.5°	8.8	9.7	11.7	11.7	11.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)