

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: P308085

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-HRP-CP125-W2A-U-5700K**

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: P308085
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-5700K
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: 1540.0 lumens
Efficiency: N/A
Efficacy: 89.5 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

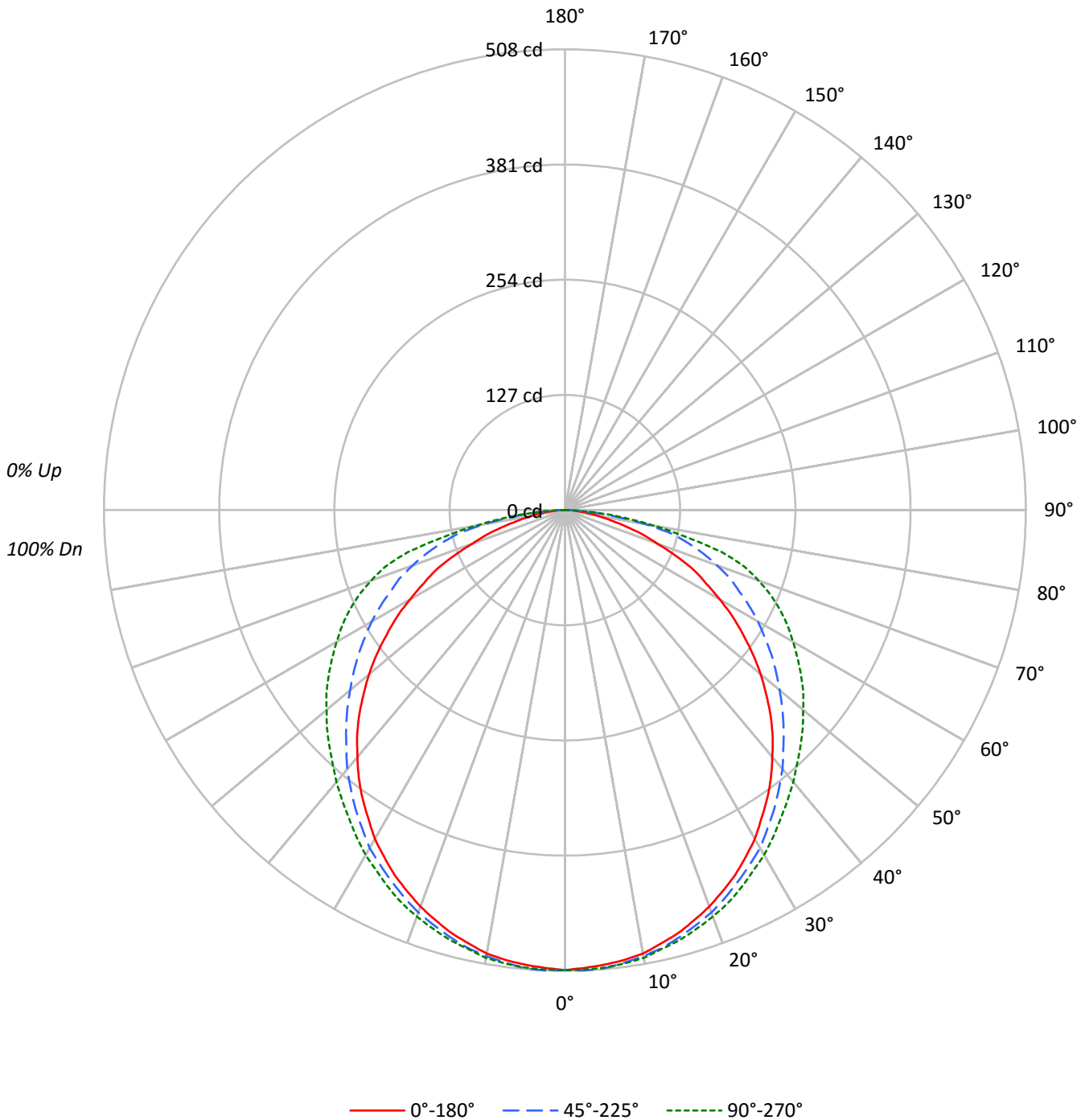
Input Watts (W): 17.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1365	1365	1365
5°	1359	1370	1367
10°	1356	1364	1370
15°	1345	1359	1367
20°	1332	1352	1366
25°	1318	1341	1364
30°	1301	1337	1364
35°	1277	1321	1363
40°	1249	1310	1375
45°	1220	1298	1397
50°	1179	1293	1436
55°	1126	1303	1491
60°	1061	1323	1563
65°	1002	1349	1670
70°	856	1406	1788
75°	717	1465	1858
80°	587	1415	1551
85°	509	1050	1139



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.1	3.1
10°-20°	137.5	8.9
20°-30°	208.3	13.5
30°-40°	251.6	16.3
40°-50°	264.4	17.2
50°-60°	248.7	16.2
60°-70°	207.4	13.5
70°-80°	137.4	8.9
80°-90°	36.6	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°	393.9	25.6
0°-40°	645.5	41.9
0°-60°	1158.6	75.2
0°-90°	1540.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1540.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	507	507	507	507	507	
5°	503	504	507	507	506	48
15°	483	485	488	490	491	136
25°	444	447	452	458	460	204
35°	389	392	402	411	415	243
45°	321	325	341	358	367	247
55°	240	251	278	306	318	215
65°	157	171	212	247	262	153
75°	69	96	141	170	179	75
85°	16	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°	507.1	507.1	507.1	507.1	507.1
2.5°	505.2	506.1	508.1	508.1	507.1
5°	503.2	504.2	507.1	507.1	506.1
7.5°	500.3	501.3	503.2	505.2	504.2
10°	496.4	497.4	499.3	501.3	501.3
12.5°	489.6	490.6	494.5	495.4	495.4
15°	482.8	484.8	487.7	489.6	490.6
17.5°	474.1	476.0	479.9	483.8	483.8
20°	465.3	467.3	472.1	476.0	477.0
22.5°	454.6	457.6	462.4	467.3	469.2
25°	444.0	446.9	451.7	457.6	459.5
27.5°	431.3	434.2	441.0	447.8	448.8
30°	418.7	421.6	430.4	436.2	439.1
32.5°	403.2	407.0	415.8	424.5	427.4
35°	388.6	392.5	402.2	410.9	414.8
37.5°	373.0	376.9	387.6	398.3	403.2
40°	355.6	360.4	373.0	384.7	391.5
42.5°	339.0	343.9	356.5	372.1	378.9
45°	320.6	325.4	341.0	358.5	367.2
47.5°	301.2	307.0	325.4	346.8	355.6
50°	281.7	288.5	308.9	333.2	342.9
52.5°	261.3	270.1	293.4	319.6	331.3
55°	240.0	250.6	277.8	306.0	317.7
57.5°	219.6	229.3	261.3	291.4	304.1
60°	197.2	209.8	245.8	276.9	290.5
62.5°	175.8	189.4	229.3	262.3	276.9
65°	157.4	171.0	211.8	246.8	262.3
67.5°	133.1	151.5	197.2	230.2	245.8
70°	108.8	134.1	178.7	212.8	227.3
72.5°	90.3	114.6	160.3	194.3	207.9
75°	69.0	96.2	140.9	170.0	178.7
77.5°	51.5	79.7	120.5	135.0	136.0
80°	37.9	61.2	91.3	96.2	100.1
82.5°	26.2	42.7	59.3	65.1	67.0
85°	16.5	25.3	34.0	36.9	36.9
87.5°	8.7	9.7	11.7	11.7	11.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)