

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: P308889

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-S-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: P308889
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)
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-S-CP125-W2A-U-3000K
Description: 2'X2' TROFFER LED MODULE, SMOOTH 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: 1892.0 lumens
Efficiency: N/A
Efficacy: 114.0 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

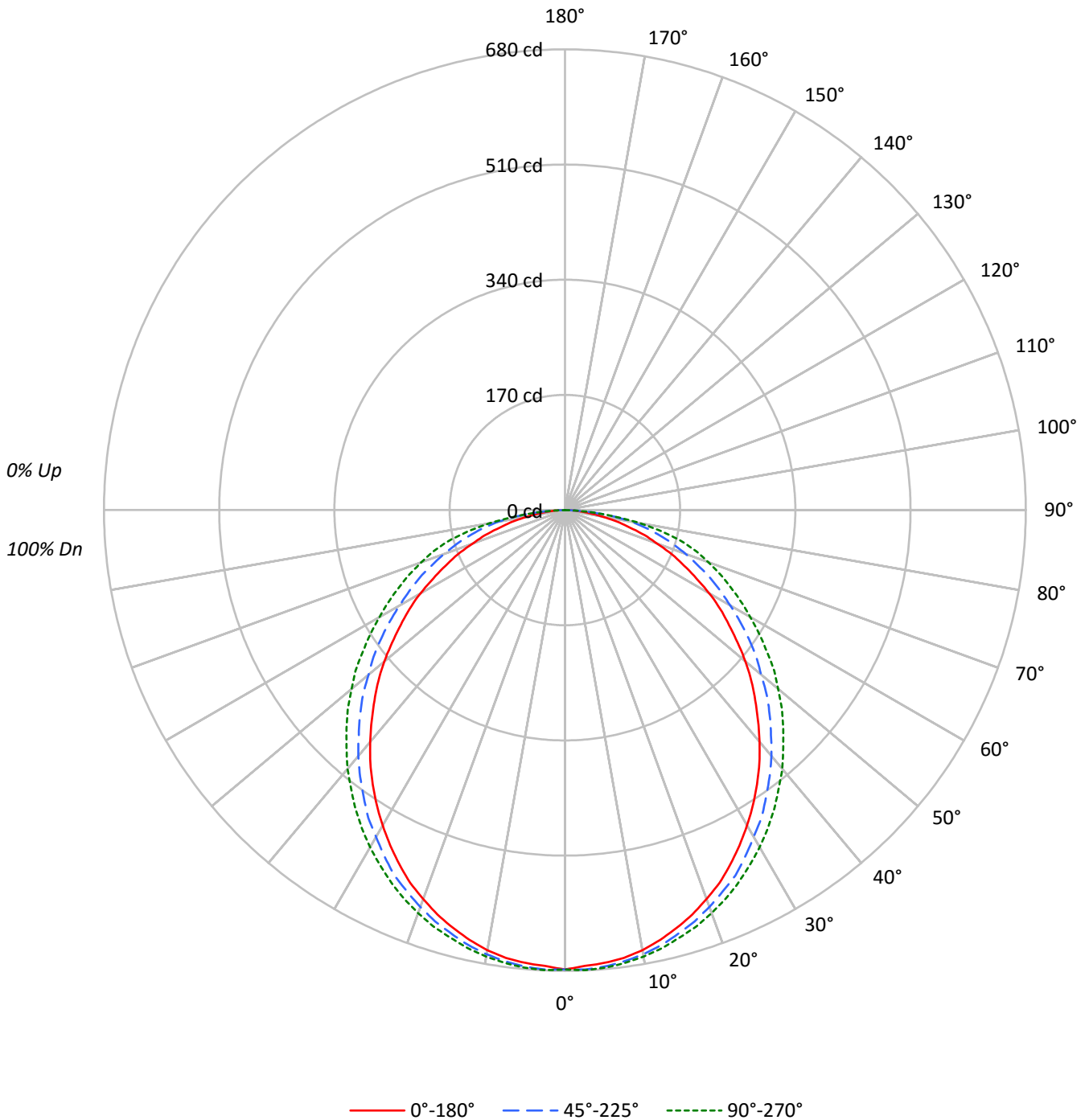
Input Watts (W): 16.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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CATALOG NUMBER: 22FC22-20HE-UNV-L82765-S-CP125-W2A-U-3000K

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	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1824	1824	1824
5°	1812	1827	1831
10°	1802	1819	1828
15°	1778	1803	1820
20°	1749	1785	1812
25°	1714	1767	1801
30°	1670	1731	1786
35°	1624	1699	1769
40°	1569	1665	1752
45°	1512	1626	1733
50°	1456	1582	1719
55°	1387	1553	1706
60°	1326	1516	1701
65°	1237	1507	1720
70°	1139	1493	1771
75°	1028	1515	1863
80°	890	1559	1751
85°	735	1309	1309



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.1	3.4
10°-20°	182.5	9.6
20°-30°	273.0	14.4
30°-40°	323.3	17.1
40°-50°	329.5	17.4
50°-60°	295.3	15.6
60°-70°	231.2	12.2
70°-80°	149.1	7.9
80°-90°	44.0	2.3
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°	519.6	27.5
0°-40°	842.9	44.5
0°-60°	1467.7	77.6
0°-90°	1892.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1892.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	678	678	678	678	678	
5°	671	673	676	677	678	64
15°	638	642	647	652	653	180
25°	577	583	595	603	606	266
35°	494	500	517	533	538	309
45°	397	406	427	449	456	307
55°	296	305	331	354	364	265
65°	194	206	237	260	270	193
75°	99	114	146	170	179	106
85°	24	33	42	42	42	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	678.0	678.0	678.0	678.0	678.0
2.5°	673.5	675.3	678.8	679.7	679.7
5°	670.9	672.7	676.2	677.1	678.0
7.5°	666.5	667.4	671.8	673.5	674.4
10°	659.4	661.2	665.6	668.3	669.1
12.5°	649.7	652.4	657.7	661.2	662.1
15°	638.2	641.8	647.1	652.4	653.2
17.5°	625.9	629.4	636.5	642.7	644.4
20°	610.9	615.3	623.2	630.3	632.9
22.5°	595.9	599.4	609.1	617.9	620.6
25°	577.3	582.6	595.0	602.9	606.5
27.5°	557.9	564.1	576.4	587.0	590.6
30°	537.6	543.8	557.0	570.3	574.7
32.5°	516.4	523.5	539.4	552.6	557.0
35°	494.3	500.5	517.3	533.2	538.5
37.5°	471.4	476.7	496.1	512.9	518.2
40°	446.7	453.7	474.0	493.5	498.8
42.5°	422.0	429.9	450.2	471.4	476.7
45°	397.2	406.1	427.3	449.3	455.5
47.5°	373.4	380.5	404.3	425.5	434.3
50°	347.8	354.9	377.8	401.7	410.5
52.5°	321.3	331.0	355.8	378.7	389.3
55°	295.7	305.4	331.0	354.0	363.7
57.5°	271.9	279.8	306.3	330.2	339.9
60°	246.3	253.4	281.6	307.2	316.0
62.5°	218.9	229.5	258.6	282.5	293.1
65°	194.2	205.7	236.6	259.5	270.1
67.5°	171.3	181.8	211.9	236.6	248.1
70°	144.8	158.9	189.8	214.5	225.1
72.5°	123.6	135.9	167.7	192.4	203.9
75°	98.9	113.9	145.7	170.4	179.2
77.5°	78.6	93.6	123.6	143.0	147.4
80°	57.4	72.4	100.6	110.3	113.0
82.5°	38.8	53.0	72.4	75.0	75.9
85°	23.8	32.7	42.4	42.4	42.4
87.5°	11.5	13.2	15.0	14.1	14.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)