

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: P308938

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-S-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: P308938
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: 22FCZ2-24HE-UNV-L82765-S-CP125-W2A-U-5000K
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: 2329.0 lumens
Efficiency: N/A
Efficacy: 120.7 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

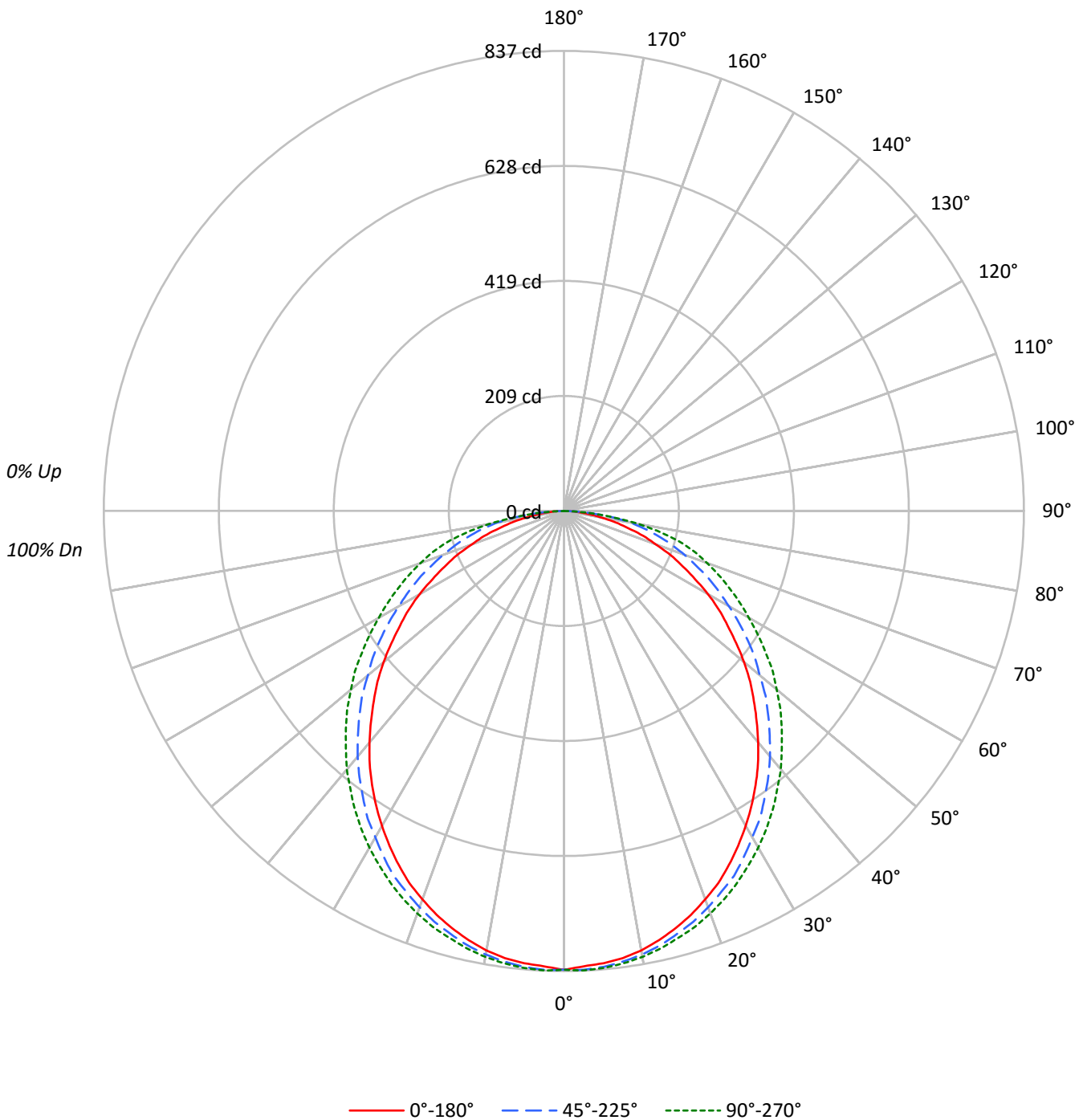
Input Watts (W): 19.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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CATALOG NUMBER: 22FC22-24HE-UNV-L82765-S-CP125-W2A-U-5000K

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°	2246	2246	2246
5°	2231	2249	2254
10°	2218	2239	2251
15°	2189	2219	2240
20°	2153	2197	2231
25°	2110	2175	2216
30°	2056	2131	2198
35°	1999	2092	2178
40°	1931	2050	2157
45°	1861	2001	2134
50°	1792	1947	2115
55°	1708	1912	2100
60°	1632	1865	2094
65°	1522	1854	2117
70°	1402	1838	2180
75°	1265	1864	2294
80°	1094	1920	2156
85°	905	1612	1612



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.9	3.4
10°-20°	224.6	9.6
20°-30°	336.1	14.4
30°-40°	398.0	17.1
40°-50°	405.6	17.4
50°-60°	363.5	15.6
60°-70°	284.6	12.2
70°-80°	183.5	7.9
80°-90°	54.2	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°	639.6	27.5
0°-40°	1037.5	44.5
0°-60°	1806.6	77.6
0°-90°	2329.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2329.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	835	835	835	835	835	
5°	826	828	832	834	835	78
15°	786	790	796	803	804	222
25°	711	717	732	742	746	327
35°	608	616	637	656	663	380
45°	489	500	526	553	561	378
55°	364	376	408	436	448	326
65°	239	253	291	320	332	237
75°	122	140	179	210	221	130
85°	29	40	52	52	52	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	834.6	834.6	834.6	834.6	834.6
2.5°	829.1	831.3	835.6	836.7	836.7
5°	825.9	828.0	832.4	833.5	834.6
7.5°	820.4	821.5	826.9	829.1	830.2
10°	811.7	813.9	819.3	822.6	823.7
12.5°	799.8	803.0	809.6	813.9	815.0
15°	785.7	790.0	796.5	803.0	804.1
17.5°	770.4	774.8	783.5	791.1	793.3
20°	752.0	757.4	767.2	775.9	779.1
22.5°	733.5	737.8	749.8	760.7	763.9
25°	710.7	717.2	732.4	742.2	746.5
27.5°	686.8	694.4	709.6	722.6	727.0
30°	661.8	669.4	685.7	702.0	707.4
32.5°	635.7	644.4	663.9	680.2	685.7
35°	608.5	616.1	636.8	656.3	662.9
37.5°	580.3	586.8	610.7	631.3	637.9
40°	549.8	558.5	583.5	607.4	614.0
42.5°	519.4	529.2	554.2	580.3	586.8
45°	489.0	499.9	525.9	553.1	560.7
47.5°	459.7	468.3	497.7	523.8	534.6
50°	428.1	436.8	465.1	494.4	505.3
52.5°	395.5	407.5	437.9	466.2	479.2
55°	364.0	376.0	407.5	435.7	447.7
57.5°	334.7	344.5	377.1	406.4	418.4
60°	303.2	311.9	346.6	378.2	389.0
62.5°	269.5	282.5	318.4	347.7	360.8
65°	239.1	253.2	291.2	319.5	332.5
67.5°	210.8	223.9	260.8	291.2	305.4
70°	178.2	195.6	233.6	264.1	277.1
72.5°	152.1	167.3	206.5	236.9	251.0
75°	121.7	140.2	179.3	209.7	220.6
77.5°	96.7	115.2	152.1	176.0	181.5
80°	70.6	89.1	123.9	135.8	139.1
82.5°	47.8	65.2	89.1	92.4	93.5
85°	29.3	40.2	52.2	52.2	52.2
87.5°	14.1	16.3	18.5	17.4	17.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)