

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: P308712

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-CP125-W2A-U-4500K**

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: P308712
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-33)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-29HE-UNV-L82765-CP125-W2A-U-4500K
Description: 2'X2' TROFFER LED MODULE, RIBBED 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: 2548.0 lumens
Efficiency: N/A
Efficacy: 111.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

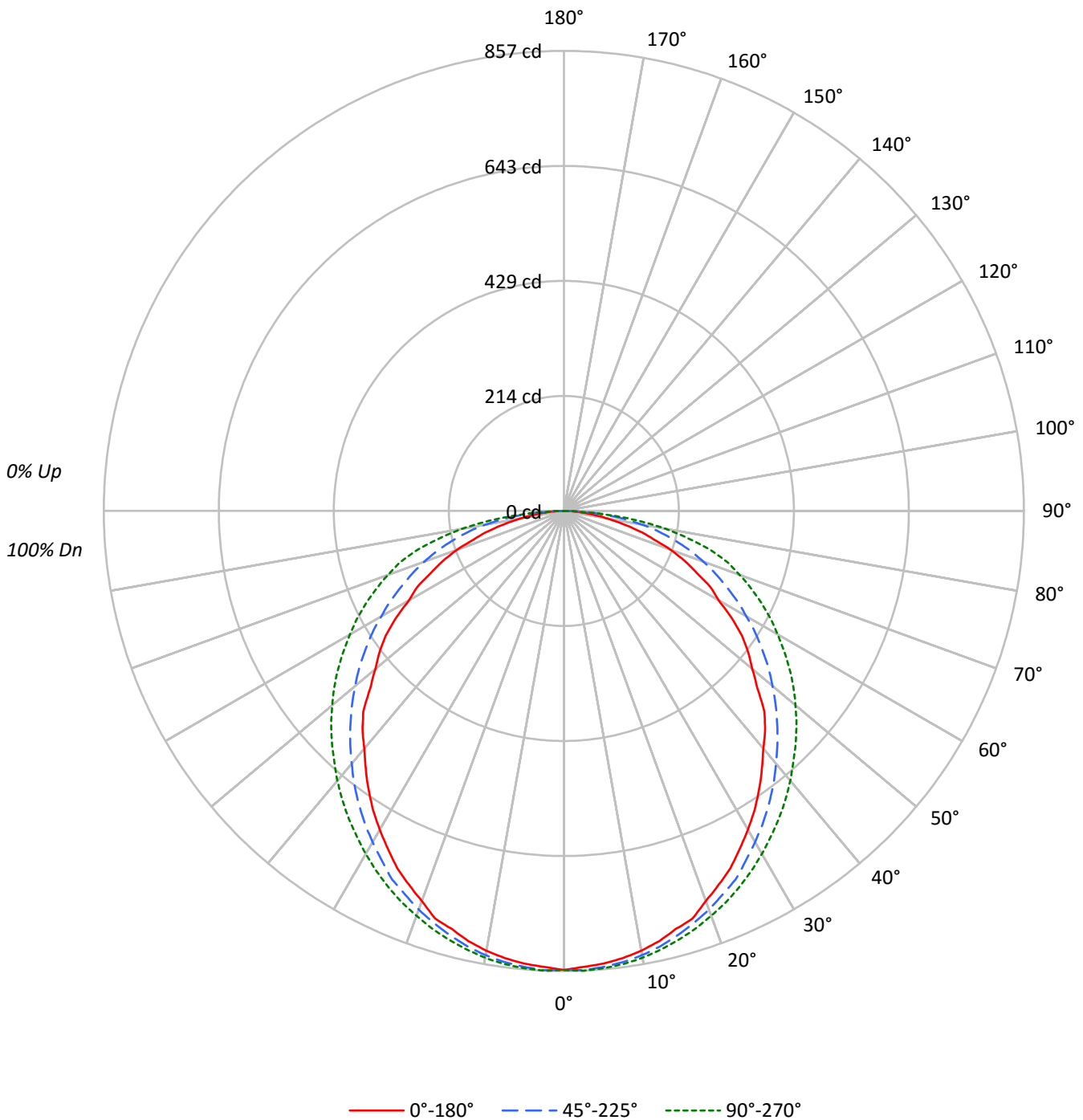
Input Watts (W): 22.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	92	96	93	90	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	60	53	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	51	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
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	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2301	2301	2301
5°	2286	2303	2309
10°	2273	2296	2309
15°	2246	2280	2303
20°	2214	2263	2298
25°	2180	2249	2296
30°	2130	2213	2293
35°	2083	2188	2296
40°	2030	2159	2305
45°	2009	2140	2325
50°	1919	2124	2359
55°	1900	2117	2409
60°	1792	2113	2475
65°	1740	2127	2586
70°	1670	2178	2744
75°	1521	2245	2954
80°	1303	2325	2986
85°	1053	2223	2560



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.9	3.2
10°-20°	230.8	9.1
20°-30°	347.3	13.6
30°-40°	416.8	16.4
40°-50°	435.7	17.1
50°-60°	406.0	15.9
60°-70°	333.0	13.1
70°-80°	224.4	8.8
80°-90°	73.1	2.9
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°	659.0	25.9
0°-40°	1075.8	42.2
0°-60°	1917.5	75.3
0°-90°	2548.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2548.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	855	855	855	855	855	
5°	846	849	852	854	855	80
15°	806	811	818	826	827	228
25°	734	739	757	768	773	338
35°	634	643	666	689	699	396
45°	528	532	562	596	611	403
55°	405	412	451	494	513	359
65°	273	285	334	383	406	272
75°	146	162	216	265	284	154
85°	34	49	72	84	83	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	854.9	854.9	854.9	854.9	854.9
2.5°	850.0	852.4	856.1	857.3	857.3
5°	846.3	848.8	852.4	853.7	854.9
7.5°	840.2	842.7	847.6	850.0	851.2
10°	831.7	834.1	840.2	843.9	845.1
12.5°	820.7	823.2	830.5	835.4	836.6
15°	806.1	811.0	818.3	825.6	826.8
17.5°	796.3	795.1	804.9	813.4	815.9
20°	773.2	779.3	790.2	800.0	802.4
22.5°	753.7	758.5	773.2	784.1	789.0
25°	734.1	739.0	757.3	768.3	773.2
27.5°	709.8	717.1	734.1	750.0	756.1
30°	685.4	692.7	712.2	730.5	737.8
32.5°	661.0	669.5	690.2	709.8	718.3
35°	634.1	642.7	665.9	689.0	698.8
37.5°	606.1	617.1	641.5	667.1	678.0
40°	578.0	589.0	614.6	643.9	656.1
42.5°	554.9	559.8	589.0	620.7	632.9
45°	528.0	531.7	562.2	596.3	611.0
47.5°	489.0	502.4	535.4	573.2	587.8
50°	458.5	473.2	507.3	547.6	563.4
52.5°	432.9	442.7	480.5	520.7	539.0
55°	404.9	412.2	451.2	493.9	513.4
57.5°	370.7	384.1	423.2	467.1	486.6
60°	332.9	350.0	392.7	440.2	459.8
62.5°	308.5	318.3	364.6	412.2	434.1
65°	273.2	285.4	334.1	382.9	406.1
67.5°	243.9	256.1	306.1	354.9	378.0
70°	212.2	224.4	276.8	325.6	348.8
72.5°	175.6	192.7	247.6	296.3	320.7
75°	146.3	162.2	215.9	264.6	284.1
77.5°	113.4	134.1	184.1	224.4	239.0
80°	84.1	104.9	150.0	179.3	192.7
82.5°	57.3	78.0	112.2	134.1	141.5
85°	34.1	48.8	72.0	84.1	82.9
87.5°	15.9	20.7	29.3	29.3	28.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)