

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: P308714

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-CP125-W2A-U-5500K**

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: P308714
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-5500K
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: 2609.0 lumens
Efficiency: N/A
Efficacy: 113.4 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

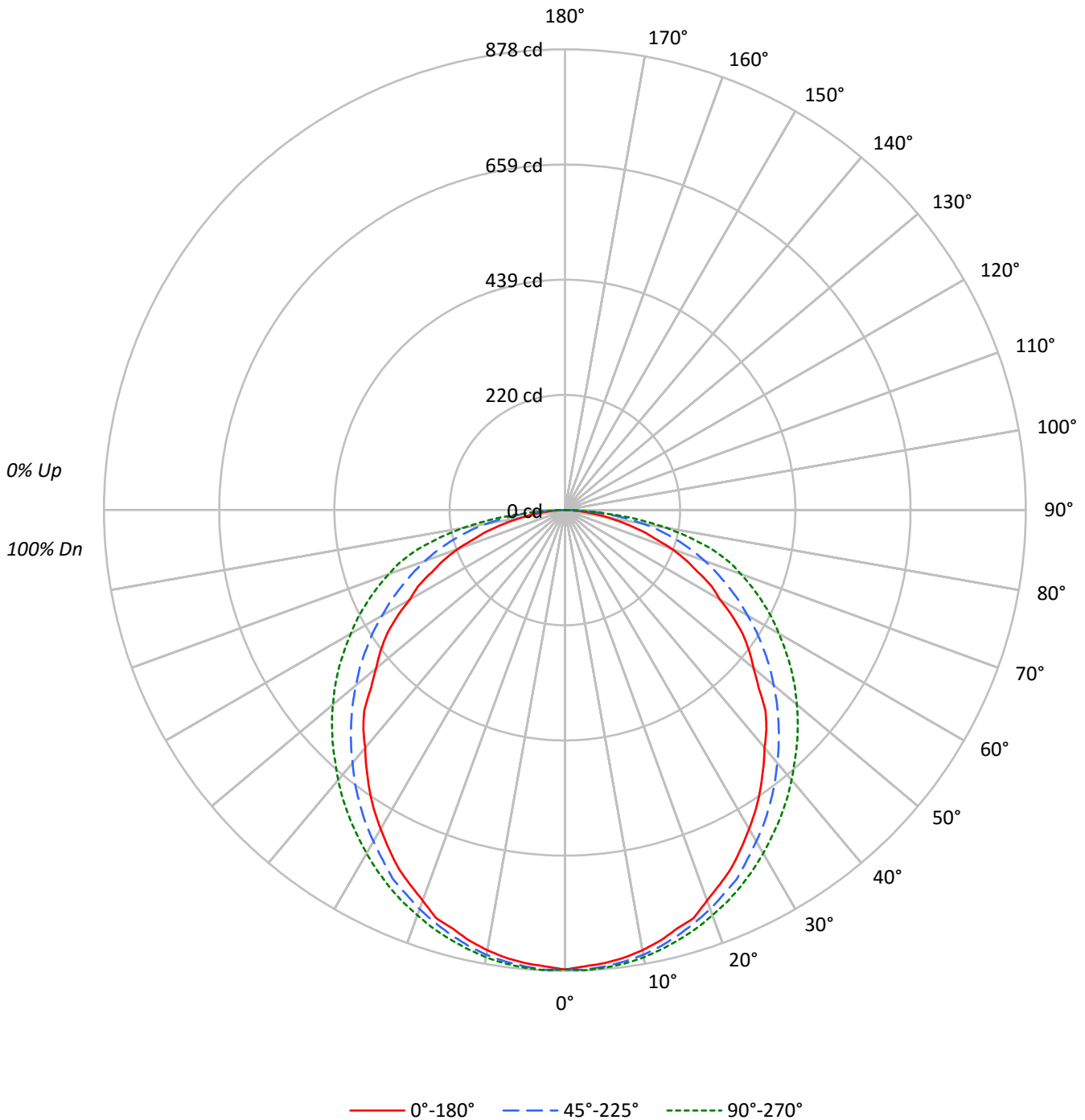
Input Watts (W): 23
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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°	2355	2355	2355
5°	2341	2358	2364
10°	2327	2351	2365
15°	2299	2334	2359
20°	2267	2317	2353
25°	2232	2302	2351
30°	2181	2266	2348
35°	2133	2240	2350
40°	2079	2211	2360
45°	2058	2191	2381
50°	1966	2175	2415
55°	1945	2168	2466
60°	1835	2164	2534
65°	1781	2178	2648
70°	1710	2231	2810
75°	1557	2298	3025
80°	1336	2380	3058
85°	1081	2276	2621



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.8	3.2
10°-20°	236.3	9.1
20°-30°	355.6	13.6
30°-40°	426.8	16.4
40°-50°	446.1	17.1
50°-60°	415.7	15.9
60°-70°	341.0	13.1
70°-80°	229.8	8.8
80°-90°	74.8	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°	674.7	25.9
0°-40°	1101.6	42.2
0°-60°	1963.4	75.3
0°-90°	2609.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2609.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	875	875	875	875	875	
5°	867	869	873	874	875	82
15°	825	830	838	845	847	233
25°	752	757	775	787	792	346
35°	649	658	682	706	716	406
45°	541	544	576	611	626	413
55°	415	422	462	506	526	367
65°	280	292	342	392	416	278
75°	150	166	221	271	291	158
85°	35	50	74	86	85	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	875.3	875.3	875.3	875.3	875.3
2.5°	870.3	872.8	876.6	877.8	877.8
5°	866.6	869.1	872.8	874.1	875.3
7.5°	860.4	862.9	867.8	870.3	871.6
10°	851.6	854.1	860.4	864.1	865.4
12.5°	840.4	842.9	850.4	855.4	856.6
15°	825.4	830.4	837.9	845.4	846.6
17.5°	815.4	814.2	824.1	832.9	835.4
20°	791.7	797.9	809.2	819.1	821.6
22.5°	771.7	776.7	791.7	802.9	807.9
25°	751.7	756.7	775.4	786.7	791.7
27.5°	726.7	734.2	751.7	768.0	774.2
30°	701.8	709.3	729.2	748.0	755.5
32.5°	676.8	685.5	706.8	726.7	735.5
35°	649.3	658.1	681.8	705.5	715.5
37.5°	620.6	631.8	656.8	683.0	694.3
40°	591.9	603.1	629.3	659.3	671.8
42.5°	568.2	573.2	603.1	635.6	648.1
45°	540.7	544.4	575.7	610.6	625.6
47.5°	500.7	514.5	548.2	586.9	601.9
50°	469.5	484.5	519.5	560.7	576.9
52.5°	443.3	453.3	492.0	533.2	551.9
55°	414.6	422.1	462.0	505.7	525.7
57.5°	379.6	393.3	433.3	478.3	498.2
60°	340.9	358.4	402.1	450.8	470.8
62.5°	315.9	325.9	373.4	422.1	444.5
65°	279.7	292.2	342.1	392.1	415.8
67.5°	249.7	262.2	313.4	363.4	387.1
70°	217.3	229.8	283.5	333.4	357.1
72.5°	179.8	197.3	253.5	303.4	328.4
75°	149.8	166.1	221.0	271.0	290.9
77.5°	116.1	137.4	188.6	229.8	244.7
80°	86.2	107.4	153.6	183.6	197.3
82.5°	58.7	79.9	114.9	137.4	144.8
85°	35.0	49.9	73.7	86.2	84.9
87.5°	16.2	21.2	30.0	30.0	28.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)