

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: P308733

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-CP250-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: P308733
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-CP250-W2A-U-5700K
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.250" 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: 2484.0 lumens
Efficiency: N/A
Efficacy: 108.0 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

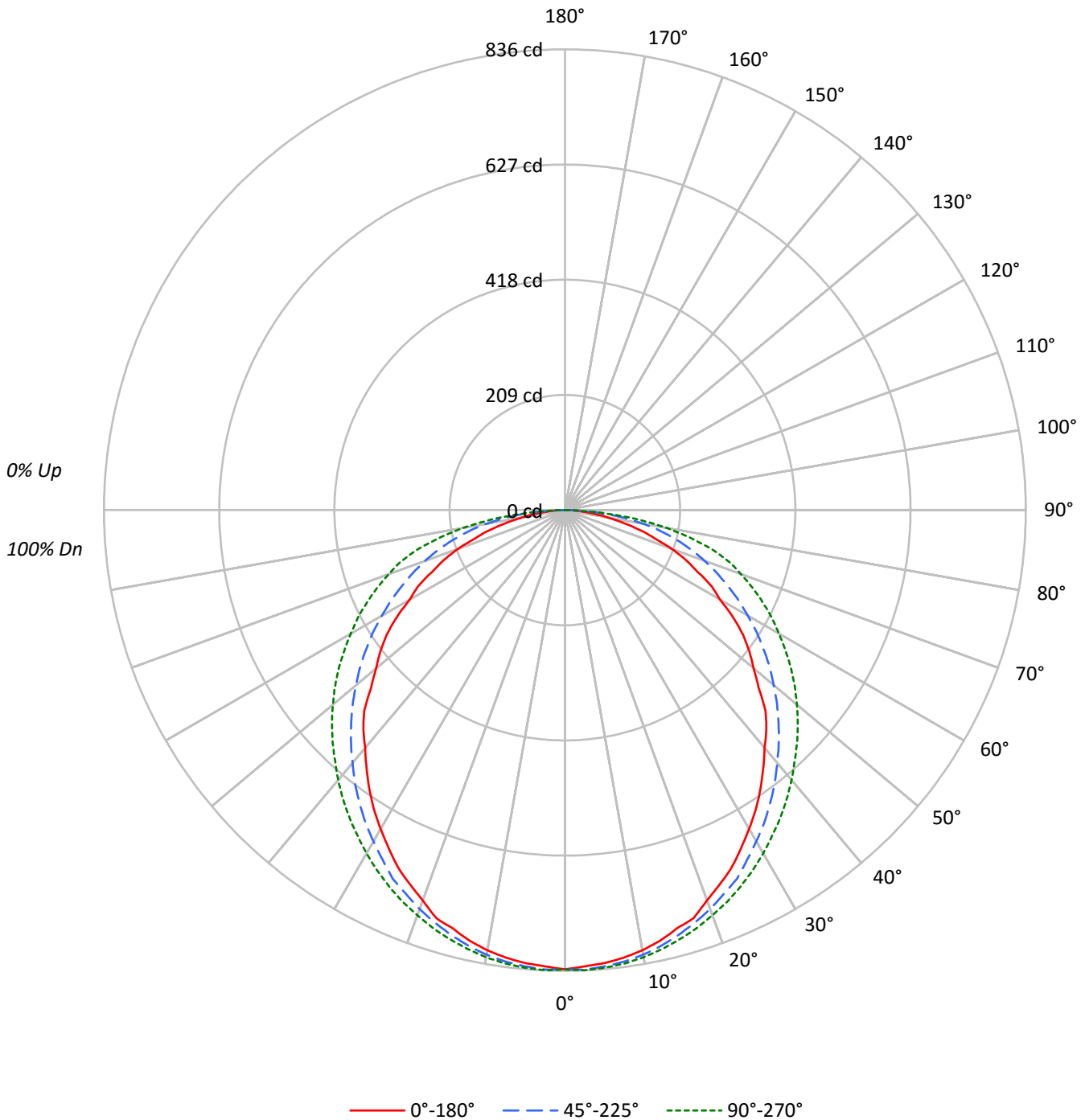
Input Watts (W): 23
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2243	2243	2243
5°	2229	2245	2251
10°	2216	2238	2251
15°	2189	2222	2246
20°	2158	2206	2240
25°	2125	2192	2238
30°	2076	2157	2235
35°	2031	2132	2238
40°	1979	2105	2247
45°	1959	2086	2267
50°	1871	2071	2300
55°	1852	2064	2348
60°	1747	2060	2412
65°	1696	2074	2521
70°	1628	2124	2675
75°	1484	2188	2880
80°	1271	2266	2910
85°	1028	2164	2495



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.9	3.2
10°-20°	225.0	9.1
20°-30°	338.6	13.6
30°-40°	406.4	16.4
40°-50°	424.7	17.1
50°-60°	395.8	15.9
60°-70°	324.7	13.1
70°-80°	218.8	8.8
80°-90°	71.2	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°	642.4	25.9
0°-40°	1048.8	42.2
0°-60°	1869.3	75.3
0°-90°	2484.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2484.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	833	833	833	833	833	
5°	825	828	831	832	833	78
15°	786	791	798	805	806	222
25°	716	720	738	749	754	329
35°	618	626	649	672	681	387
45°	515	518	548	581	596	393
55°	395	402	440	482	500	350
65°	266	278	326	373	396	265
75°	143	158	210	258	277	150
85°	33	48	70	82	81	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	833.4	833.4	833.4	833.4	833.4
2.5°	828.6	831.0	834.6	835.8	835.8
5°	825.1	827.5	831.0	832.2	833.4
7.5°	819.1	821.5	826.3	828.6	829.8
10°	810.8	813.2	819.1	822.7	823.9
12.5°	800.1	802.5	809.6	814.4	815.6
15°	785.8	790.6	797.7	804.9	806.1
17.5°	776.3	775.1	784.7	793.0	795.4
20°	753.7	759.7	770.4	779.9	782.3
22.5°	734.7	739.5	753.7	764.4	769.2
25°	715.7	720.5	738.3	749.0	753.7
27.5°	691.9	699.1	715.7	731.2	737.1
30°	668.1	675.3	694.3	712.1	719.3
32.5°	644.4	652.7	672.9	691.9	700.2
35°	618.2	626.5	649.1	671.7	681.2
37.5°	590.9	601.6	625.3	650.3	661.0
40°	563.5	574.2	599.2	627.7	639.6
42.5°	540.9	545.7	574.2	605.1	617.0
45°	514.8	518.4	548.1	581.4	595.6
47.5°	476.7	489.8	521.9	558.8	573.0
50°	447.0	461.3	494.6	533.8	549.3
52.5°	422.1	431.6	468.4	507.7	525.5
55°	394.7	401.8	439.9	481.5	500.5
57.5°	361.4	374.5	412.5	455.3	474.4
60°	324.6	341.2	382.8	429.2	448.2
62.5°	300.8	310.3	355.5	401.8	423.2
65°	266.3	278.2	325.8	373.3	395.9
67.5°	237.8	249.7	298.4	346.0	368.6
70°	206.9	218.8	269.9	317.4	340.0
72.5°	171.2	187.8	241.3	288.9	312.7
75°	142.7	158.1	210.4	258.0	277.0
77.5°	110.6	130.8	179.5	218.8	233.0
80°	82.0	102.2	146.2	174.8	187.8
82.5°	55.9	76.1	109.4	130.8	137.9
85°	33.3	47.6	70.1	82.0	80.8
87.5°	15.5	20.2	28.5	28.5	27.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)