

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: P308732

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-CP250-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: P308732
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-5500K
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: 2478.0 lumens
Efficiency: N/A
Efficacy: 107.7 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

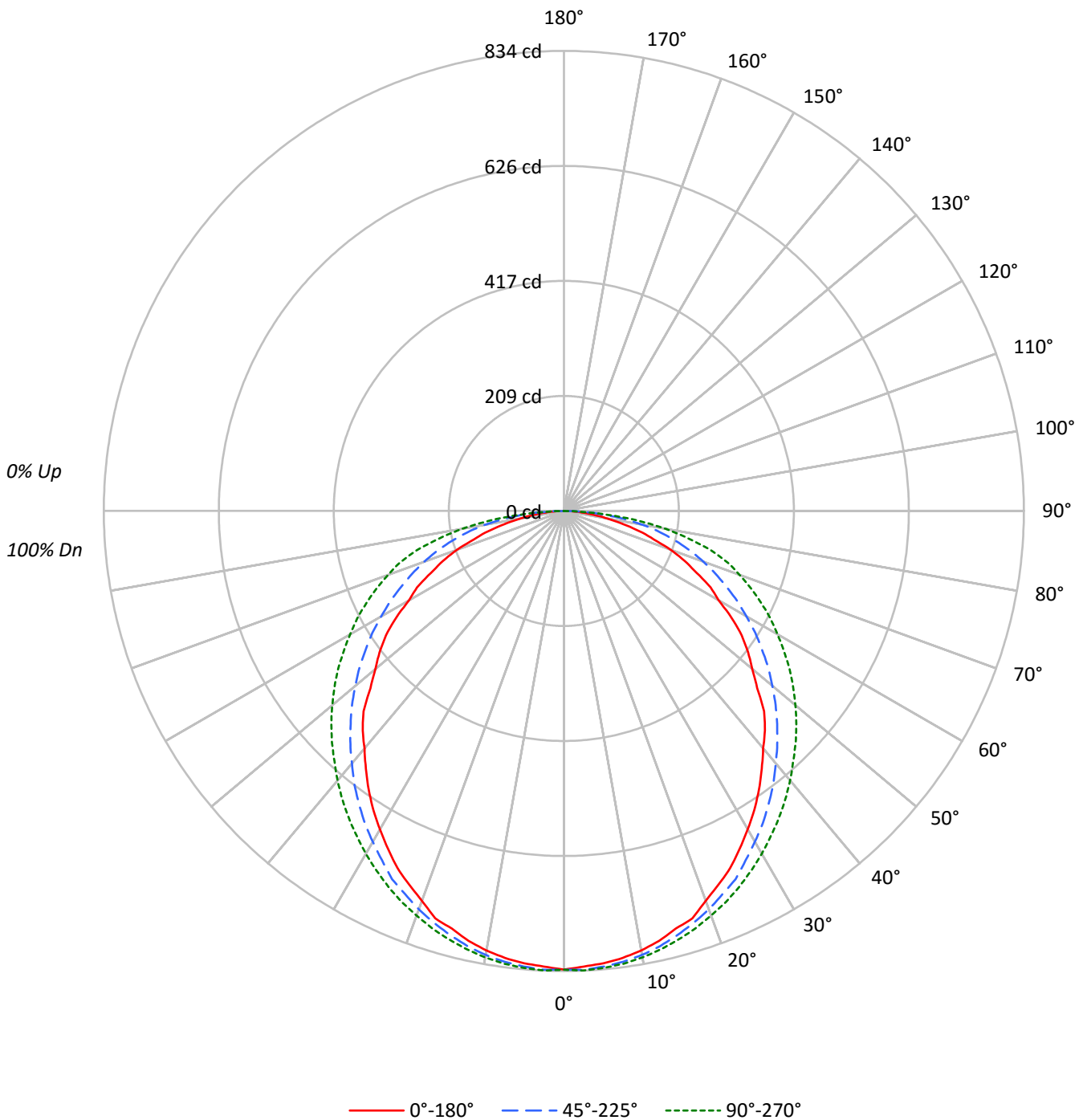
Input Watts (W): 23
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	100	100	100	100	100		
	1	108	103	98	94	105	100	96	92	96	93	90	92	89	87	89	86	84	82	82	82	82	82	82		
	2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67	67	67	67	67	67		
	3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56	56	56	56	56	56		
	4	81	69	60	53	79	67	59	52	65	57	51	62	56	51	60	55	50	48	48	48	48	48	48		
	5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41	41	41	41	41	41		
	6	69	55	46	39	67	54	45	39	52	44	39	51	44	38	49	43	38	36	36	36	36	36	36		
	7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32	32	32	32	32	32		
	8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28	28	28	28	28	28		
	9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25	25	25	25	25	25		
	10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23	23	23	23	23	23		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2237	2237	2237
5°	2223	2239	2246
10°	2210	2233	2246
15°	2184	2217	2240
20°	2153	2201	2235
25°	2120	2187	2233
30°	2071	2152	2229
35°	2026	2127	2233
40°	1975	2100	2242
45°	1954	2081	2261
50°	1867	2066	2294
55°	1848	2059	2343
60°	1743	2055	2406
65°	1692	2069	2514
70°	1624	2118	2669
75°	1480	2182	2873
80°	1268	2261	2904
85°	1025	2161	2489



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.7	3.2
10°-20°	224.4	9.1
20°-30°	337.8	13.6
30°-40°	405.4	16.4
40°-50°	423.7	17.1
50°-60°	394.9	15.9
60°-70°	323.9	13.1
70°-80°	218.2	8.8
80°-90°	71.1	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°	640.9	25.9
0°-40°	1046.3	42.2
0°-60°	1864.8	75.3
0°-90°	2478.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2478.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	831	831	831	831	831	
5°	823	826	829	830	831	78
15°	784	789	796	803	804	222
25°	714	719	736	747	752	328
35°	617	625	648	670	680	386
45°	514	517	547	580	594	392
55°	394	401	439	480	499	349
65°	266	278	325	372	395	264
75°	142	158	210	257	276	150
85°	33	47	70	82	81	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	831.4	831.4	831.4	831.4	831.4
2.5°	826.6	829.0	832.6	833.8	833.8
5°	823.1	825.5	829.0	830.2	831.4
7.5°	817.2	819.5	824.3	826.6	827.8
10°	808.9	811.2	817.2	820.7	821.9
12.5°	798.2	800.6	807.7	812.4	813.6
15°	783.9	788.7	795.8	802.9	804.1
17.5°	774.5	773.3	782.8	791.1	793.4
20°	751.9	757.9	768.5	778.0	780.4
22.5°	733.0	737.7	751.9	762.6	767.3
25°	714.0	718.7	736.5	747.2	751.9
27.5°	690.3	697.4	714.0	729.4	735.3
30°	666.5	673.7	692.6	710.4	717.5
32.5°	642.8	651.1	671.3	690.3	698.6
35°	616.7	625.0	647.6	670.1	679.6
37.5°	589.4	600.1	623.8	648.7	659.4
40°	562.2	572.8	597.7	626.2	638.1
42.5°	539.6	544.4	572.8	603.7	615.5
45°	513.5	517.1	546.7	580.0	594.2
47.5°	475.6	488.6	520.7	557.4	571.7
50°	445.9	460.2	493.4	532.5	547.9
52.5°	421.0	430.5	467.3	506.4	524.2
55°	393.8	400.9	438.8	480.3	499.3
57.5°	360.5	373.6	411.5	454.2	473.2
60°	323.8	340.4	381.9	428.1	447.1
62.5°	300.1	309.5	354.6	400.9	422.2
65°	265.7	277.5	325.0	372.4	394.9
67.5°	237.2	249.1	297.7	345.1	367.7
70°	206.4	218.2	269.2	316.7	339.2
72.5°	170.8	187.4	240.8	288.2	311.9
75°	142.3	157.7	209.9	257.4	276.3
77.5°	110.3	130.5	179.1	218.2	232.5
80°	81.8	102.0	145.9	174.3	187.4
82.5°	55.7	75.9	109.1	130.5	137.6
85°	33.2	47.4	70.0	81.8	80.6
87.5°	15.4	20.2	28.5	28.5	27.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)