

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: P308464

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-RDP-CP250-W2A-U-6500K**

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: P308464
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
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-RDP-CP250-W2A-U-6500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 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: 1667.0 lumens
Efficiency: N/A
Efficacy: 71.2 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

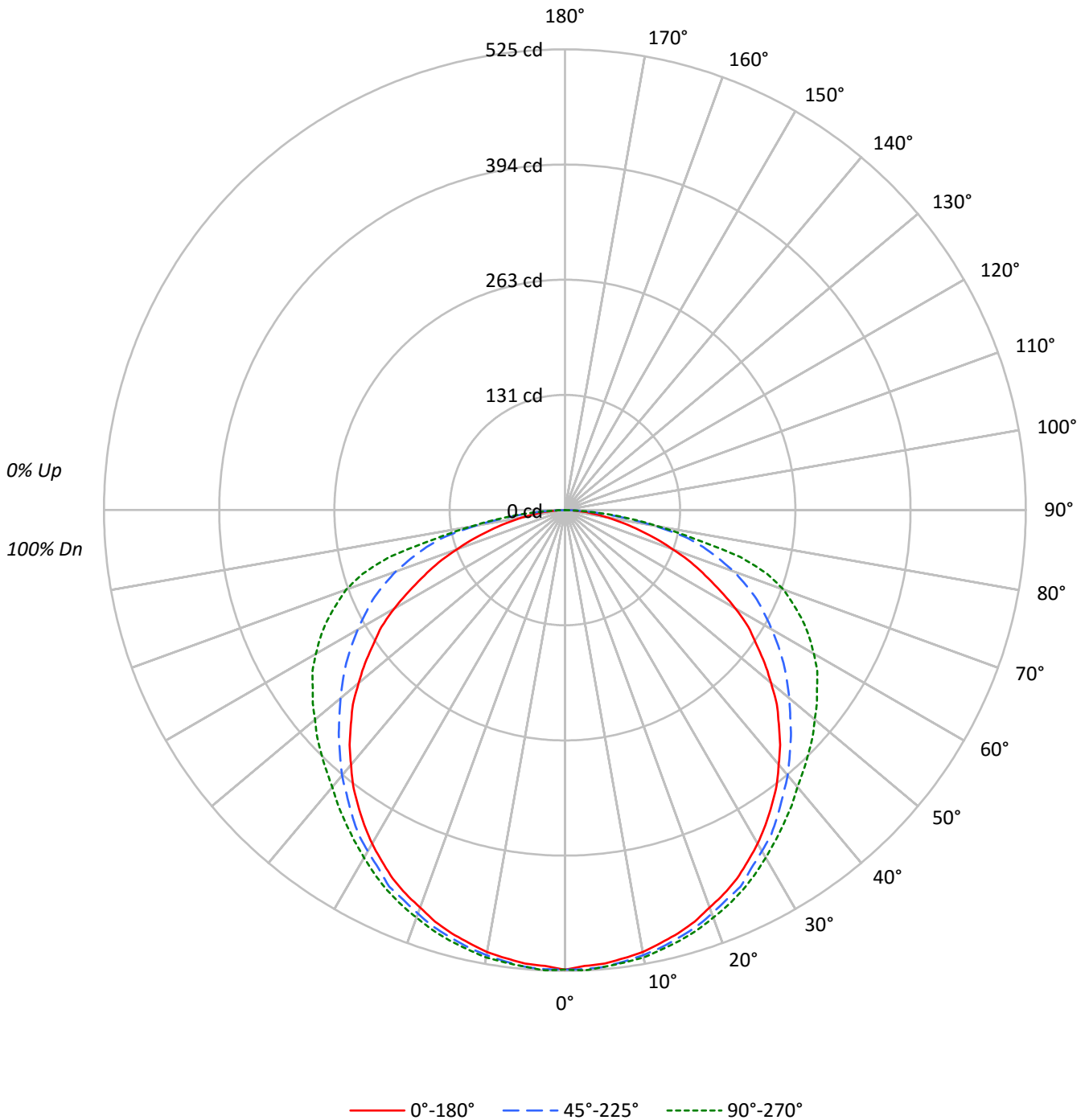
Input Watts (W): 23.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1409	1409	1409
5°	1401	1411	1411
10°	1397	1407	1414
15°	1390	1404	1414
20°	1380	1401	1415
25°	1376	1406	1420
30°	1364	1395	1421
35°	1350	1390	1430
40°	1331	1387	1447
45°	1311	1386	1493
50°	1284	1397	1556
55°	1248	1427	1645
60°	1208	1465	1762
65°	1124	1538	1905
70°	1032	1611	2084
75°	906	1696	2154
80°	779	1615	1691
85°	682	1173	1288



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.5	3.0
10°-20°	142.2	8.5
20°-30°	217.0	13.0
30°-40°	264.9	15.9
40°-50°	283.3	17.0
50°-60°	273.4	16.4
60°-70°	235.4	14.1
70°-80°	159.2	9.6
80°-90°	42.0	2.5
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°	408.7	24.5
0°-40°	673.7	40.4
0°-60°	1230.4	73.8
0°-90°	1667.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1667.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	524	524	524	524	524	
5°	519	520	522	522	522	49
15°	499	500	504	506	508	141
25°	464	466	473	476	478	213
35°	411	414	423	432	435	257
45°	345	351	364	383	392	266
55°	266	275	304	335	351	238
65°	177	194	242	280	299	176
75°	87	115	163	196	207	93
85°	22	31	38	39	42	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	523.6	523.6	523.6	523.6	523.6
2.5°	520.0	521.2	523.6	523.6	524.9
5°	518.7	520.0	522.4	522.4	522.4
7.5°	515.0	516.3	518.7	520.0	520.0
10°	511.4	512.6	515.0	516.3	517.5
12.5°	505.2	506.5	510.1	512.6	512.6
15°	499.1	500.3	504.0	506.5	507.7
17.5°	491.7	494.2	497.9	500.3	501.6
20°	481.9	484.4	489.3	493.0	494.2
22.5°	473.4	475.8	480.7	484.4	486.8
25°	463.5	466.0	473.4	475.8	478.3
27.5°	451.3	453.7	459.9	464.8	468.4
30°	439.0	441.5	448.8	455.0	457.4
32.5°	425.5	429.2	437.8	442.7	446.4
35°	410.8	414.5	423.1	431.7	435.3
37.5°	396.1	399.8	408.4	419.4	424.3
40°	378.9	383.8	394.9	409.6	412.0
42.5°	363.0	369.1	378.9	396.1	402.2
45°	344.6	350.7	364.2	382.6	392.4
47.5°	327.4	333.6	348.3	370.3	382.6
50°	306.6	315.2	333.6	359.3	371.6
52.5°	287.0	294.3	318.8	347.0	361.8
55°	266.1	274.7	304.1	334.8	350.7
57.5°	247.7	255.1	288.2	322.5	340.9
60°	224.4	234.2	272.2	309.0	327.4
62.5°	199.9	214.6	256.3	294.3	313.9
65°	176.6	193.8	241.6	279.6	299.2
67.5°	155.7	174.1	223.2	263.7	282.1
70°	131.2	154.5	204.8	244.0	264.9
72.5°	109.1	134.9	183.9	223.2	241.6
75°	87.1	115.3	163.1	196.2	207.2
77.5°	67.4	94.4	139.8	149.6	150.8
80°	50.3	74.8	104.2	105.5	109.1
82.5°	34.3	52.7	67.4	73.6	74.8
85°	22.1	30.7	38.0	39.2	41.7
87.5°	9.8	11.0	13.5	12.3	12.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)