

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: P312337

Luminaire Tested: **14FCZ2-25-UNV-L83050-S-CP250-W2A-U-4000K**

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: P312337
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-25-UNV-L83050-S-CP250-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.250" POLYCARB SHEET
Light Source: (168) 4000K 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: 2308.0 lumens
Efficiency: N/A
Efficacy: 114.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

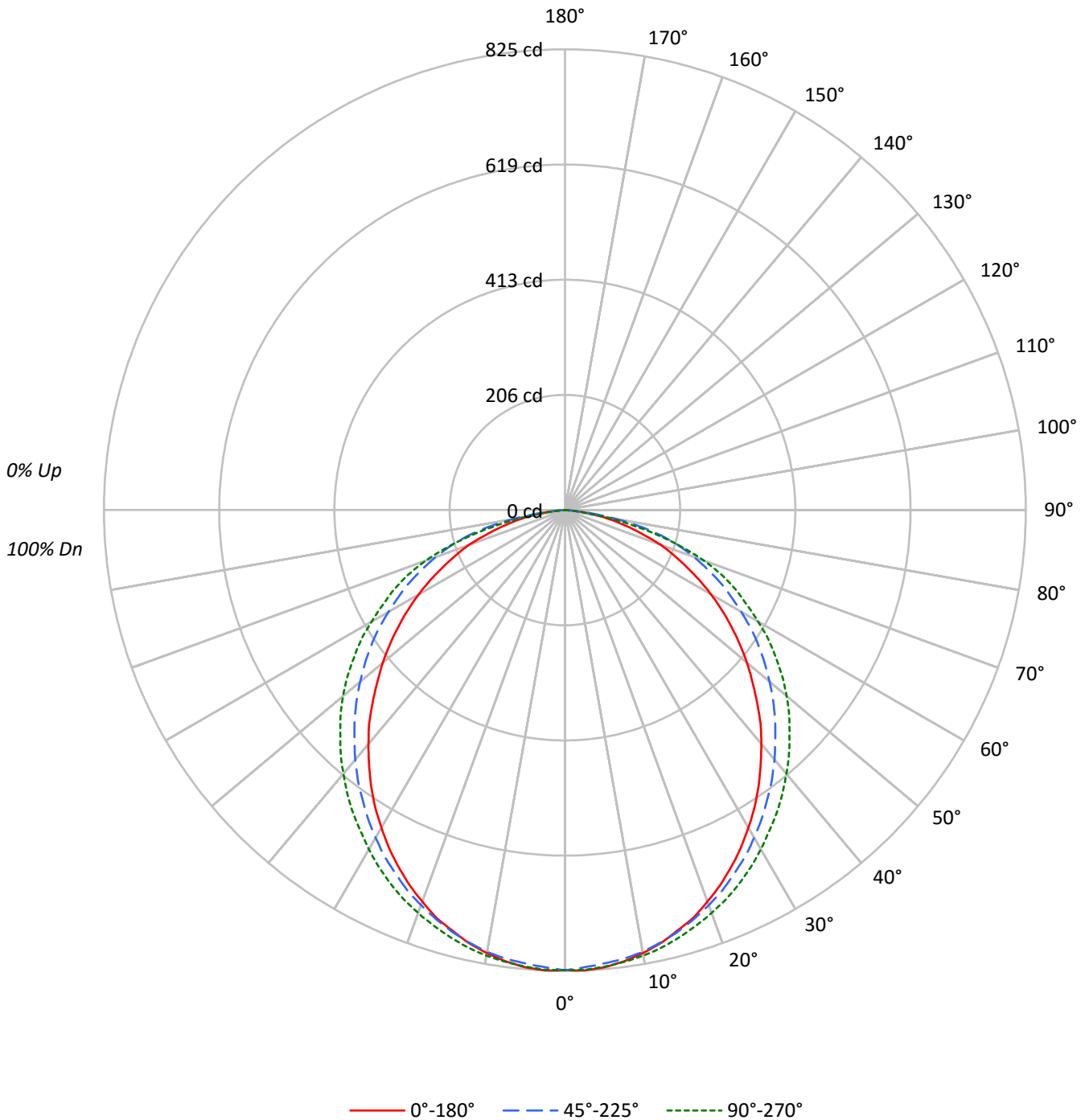
Input Watts (W): 20.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2217	2217	2217
5°	2219	2201	2216
10°	2201	2195	2214
15°	2171	2177	2206
20°	2137	2156	2199
25°	2093	2130	2192
30°	2041	2105	2180
35°	1985	2075	2173
40°	1922	2050	2167
45°	1851	2025	2164
50°	1782	2002	2170
55°	1707	1986	2164
60°	1626	1958	2150
65°	1530	1953	2150
70°	1441	1936	2089
75°	1250	1891	1784
80°	1010	1525	1189
85°	670	531	352



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.8	3.4
10°-20°	221.4	9.6
20°-30°	332.1	14.4
30°-40°	396.2	17.2
40°-50°	409.5	17.7
50°-60°	373.9	16.2
60°-70°	294.3	12.7
70°-80°	171.3	7.4
80°-90°	31.5	1.4
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°	631.3	27.4
0°-40°	1027.4	44.5
0°-60°	1810.9	78.5
0°-90°	2308.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2308.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	824	824	824	824	824	
5°	822	819	815	822	820	78
15°	779	780	782	792	792	220
25°	705	708	718	735	738	325
35°	604	612	632	656	661	378
45°	486	502	532	562	569	376
55°	364	383	423	454	461	325
65°	240	266	307	331	338	239
75°	120	149	182	178	172	128
85°	22	31	17	14	11	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	823.9	823.9	823.9	823.9	823.9
2.5°	825.1	822.8	819.3	825.1	823.9
5°	821.6	819.3	814.8	821.6	820.5
7.5°	814.8	812.5	810.2	817.1	815.9
10°	805.6	804.5	803.3	811.3	810.2
12.5°	794.2	794.2	793.0	802.2	802.2
15°	779.3	780.4	781.6	791.9	791.9
17.5°	765.6	764.4	767.8	779.3	780.4
20°	746.1	748.4	753.0	766.7	767.8
22.5°	726.6	728.9	736.9	750.7	754.1
25°	704.9	708.3	717.5	734.7	738.1
27.5°	682.0	686.6	699.2	717.5	720.9
30°	656.8	663.7	677.4	698.0	701.5
32.5°	631.7	638.5	655.7	676.3	680.9
35°	604.2	612.2	631.7	655.7	661.4
37.5°	575.6	585.9	608.8	632.8	639.7
40°	547.0	558.4	583.6	608.8	616.8
42.5°	518.4	529.8	557.3	585.9	593.9
45°	486.3	502.4	532.1	561.9	568.7
47.5°	455.4	472.6	505.8	535.5	544.7
50°	425.7	442.9	478.3	509.2	518.4
52.5°	394.8	413.1	450.9	482.9	490.9
55°	363.9	383.4	423.4	454.3	461.2
57.5°	333.0	353.6	394.8	424.5	432.6
60°	302.1	323.8	363.9	393.6	399.4
62.5°	271.2	294.1	335.3	361.6	367.3
65°	240.3	265.5	306.7	330.7	337.6
67.5°	210.6	235.7	275.8	298.7	304.4
70°	183.1	206.0	246.0	263.2	265.5
72.5°	148.8	177.4	216.3	225.4	219.7
75°	120.2	148.8	181.9	178.5	171.6
77.5°	91.5	120.2	141.9	130.5	121.3
80°	65.2	93.8	98.4	81.2	76.7
82.5°	42.3	65.2	54.9	42.3	34.3
85°	21.7	30.9	17.2	13.7	11.4
87.5°	6.9	4.6	2.3	2.3	1.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)