

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: P312336

Luminaire Tested: **14FCZ2-25-UNV-L83050-S-CP250-W2A-U-3500K**

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: P312336
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-3500K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.250" POLYCARB SHEET
Light Source: (168) 3500K 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: 2198.0 lumens
Efficiency: N/A
Efficacy: 112.1 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

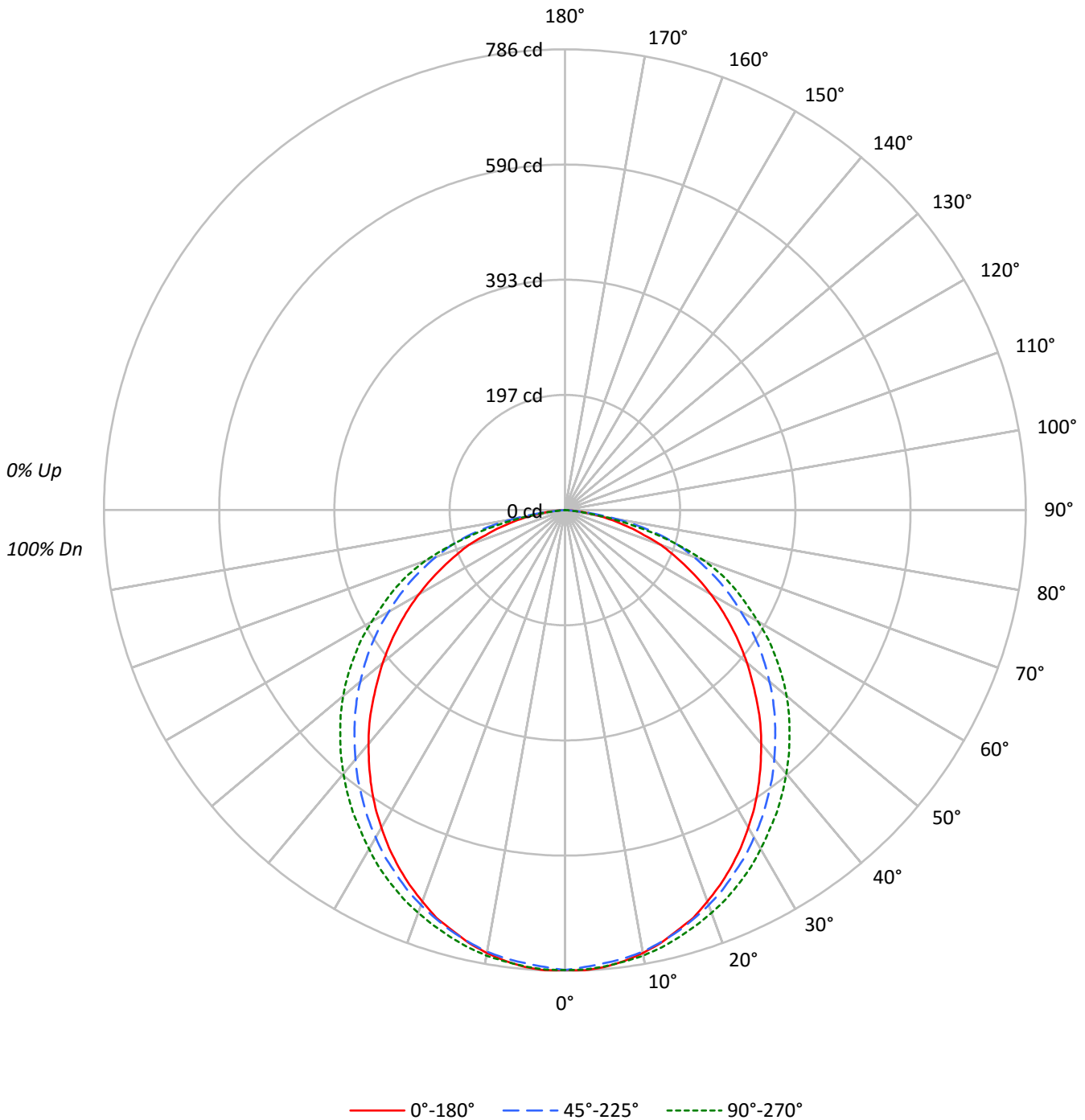
Input Watts (W): 19.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2111	2111	2111
5°	2114	2096	2111
10°	2096	2090	2108
15°	2067	2074	2101
20°	2035	2054	2094
25°	1993	2029	2087
30°	1944	2005	2076
35°	1890	1976	2069
40°	1830	1952	2063
45°	1763	1929	2061
50°	1697	1907	2067
55°	1626	1892	2061
60°	1548	1865	2047
65°	1457	1860	2047
70°	1372	1843	1989
75°	1189	1802	1700
80°	962	1452	1131
85°	639	503	337



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.1	3.4
10°-20°	210.8	9.6
20°-30°	316.3	14.4
30°-40°	377.3	17.2
40°-50°	390.0	17.7
50°-60°	356.1	16.2
60°-70°	280.2	12.7
70°-80°	163.1	7.4
80°-90°	30.1	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°	601.2	27.4
0°-40°	978.5	44.5
0°-60°	1724.6	78.5
0°-90°	2198.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2198.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	785	785	785	785	785	
5°	782	780	776	782	781	74
15°	742	743	744	754	754	209
25°	671	675	683	700	703	309
35°	575	583	602	624	630	360
45°	463	478	507	535	542	358
55°	347	365	403	433	439	310
65°	229	253	292	315	322	227
75°	114	142	173	170	164	122
85°	21	29	16	13	11	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	784.6	784.6	784.6	784.6	784.6
2.5°	785.7	783.6	780.3	785.7	784.6
5°	782.5	780.3	775.9	782.5	781.4
7.5°	775.9	773.8	771.6	778.1	777.0
10°	767.2	766.1	765.0	772.7	771.6
12.5°	756.3	756.3	755.2	763.9	763.9
15°	742.1	743.2	744.3	754.1	754.1
17.5°	729.1	728.0	731.2	742.1	743.2
20°	710.5	712.7	717.1	730.2	731.2
22.5°	692.0	694.2	701.8	714.9	718.2
25°	671.3	674.6	683.3	699.6	702.9
27.5°	649.5	653.9	665.9	683.3	686.6
30°	625.5	632.1	645.2	664.8	668.0
32.5°	601.6	608.1	624.5	644.1	648.4
35°	575.4	583.0	601.6	624.5	629.9
37.5°	548.2	558.0	579.8	602.7	609.2
40°	520.9	531.8	555.8	579.8	587.4
42.5°	493.7	504.6	530.7	558.0	565.6
45°	463.2	478.4	506.8	535.1	541.6
47.5°	433.7	450.1	481.7	510.0	518.7
50°	405.4	421.7	455.5	485.0	493.7
52.5°	376.0	393.4	429.4	459.9	467.5
55°	346.6	365.1	403.2	432.6	439.2
57.5°	317.1	336.7	376.0	404.3	411.9
60°	287.7	308.4	346.6	374.9	380.3
62.5°	258.3	280.1	319.3	344.4	349.8
65°	228.9	252.8	292.1	314.9	321.5
67.5°	200.5	224.5	262.6	284.4	289.9
70°	174.4	196.2	234.3	250.7	252.8
72.5°	141.7	168.9	206.0	214.7	209.2
75°	114.4	141.7	173.3	170.0	163.5
77.5°	87.2	114.4	135.1	124.2	115.5
80°	62.1	89.4	93.7	77.4	73.0
82.5°	40.3	62.1	52.3	40.3	32.7
85°	20.7	29.4	16.3	13.1	10.9
87.5°	6.5	4.4	2.2	2.2	1.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)