

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: P307813

Luminaire Tested: **14FCZ2-20-UNV-L82765-S-CP125-W2A-U-5000K**

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: P307813
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: 14FCZ2-20-UNV-L82765-S-CP125-W2A-U-5000K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.125" POLYCARB SHEET
Light Source: (168) 5000K 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: 2043.0 lumens
Efficiency: N/A
Efficacy: 120.9 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

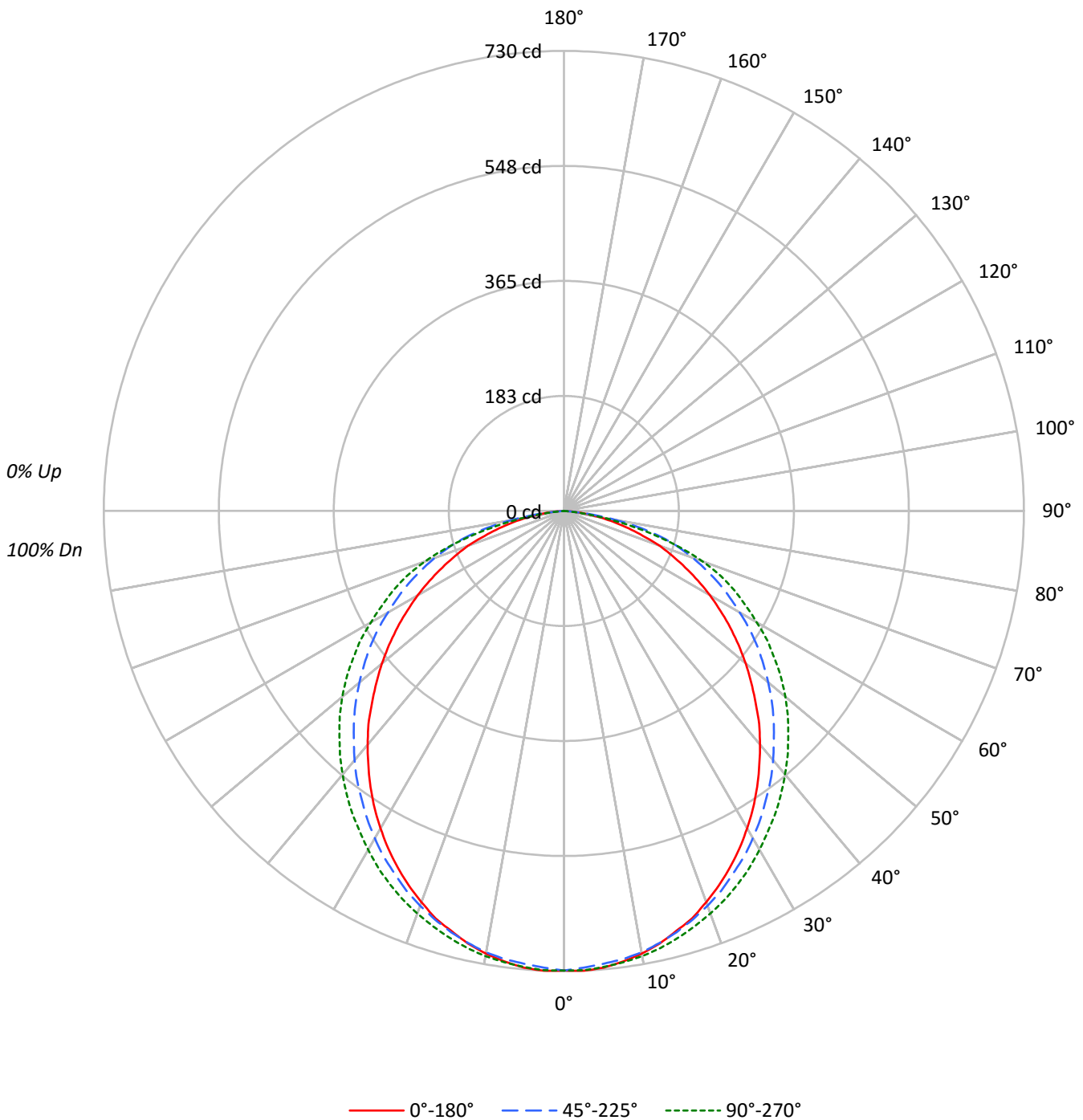
Input Watts (W): 16.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1963	1963	1963
5°	1965	1948	1962
10°	1949	1943	1960
15°	1922	1927	1953
20°	1891	1909	1946
25°	1853	1886	1940
30°	1807	1863	1929
35°	1757	1837	1923
40°	1701	1815	1918
45°	1638	1792	1916
50°	1577	1773	1921
55°	1511	1758	1915
60°	1439	1734	1903
65°	1354	1729	1903
70°	1275	1714	1849
75°	1106	1675	1579
80°	894	1350	1052
85°	593	469	312



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.9	3.4
10°-20°	196.0	9.6
20°-30°	294.0	14.4
30°-40°	350.7	17.2
40°-50°	362.5	17.7
50°-60°	331.0	16.2
60°-70°	260.5	12.7
70°-80°	151.6	7.4
80°-90°	27.9	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°	558.8	27.4
0°-40°	909.5	44.5
0°-60°	1603.0	78.5
0°-90°	2043.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2043.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	729	729	729	729	729	
5°	727	725	721	727	726	69
15°	690	691	692	701	701	195
25°	624	627	635	650	653	287
35°	535	542	559	580	586	334
45°	430	445	471	497	503	332
55°	322	339	375	402	408	288
65°	213	235	272	293	299	211
75°	106	132	161	158	152	113
85°	19	27	15	12	10	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	729.3	729.3	729.3	729.3	729.3
2.5°	730.3	728.3	725.3	730.3	729.3
5°	727.3	725.3	721.2	727.3	726.3
7.5°	721.2	719.2	717.2	723.2	722.2
10°	713.1	712.1	711.1	718.2	717.2
12.5°	703.0	703.0	702.0	710.1	710.1
15°	689.8	690.8	691.8	701.0	701.0
17.5°	677.7	676.6	679.7	689.8	690.8
20°	660.4	662.5	666.5	678.7	679.7
22.5°	643.2	645.2	652.3	664.5	667.5
25°	624.0	627.0	635.1	650.3	653.3
27.5°	603.7	607.8	618.9	635.1	638.2
30°	581.4	587.5	599.7	617.9	620.9
32.5°	559.1	565.2	580.4	598.6	602.7
35°	534.8	541.9	559.1	580.4	585.5
37.5°	509.5	518.6	538.9	560.2	566.2
40°	484.2	494.3	516.6	538.9	546.0
42.5°	458.9	469.0	493.3	518.6	525.7
45°	430.5	444.7	471.0	497.4	503.4
47.5°	403.2	418.3	447.7	474.1	482.2
50°	376.8	392.0	423.4	450.8	458.9
52.5°	349.5	365.7	399.1	427.5	434.6
55°	322.1	339.3	374.8	402.1	408.2
57.5°	294.8	313.0	349.5	375.8	382.9
60°	267.4	286.7	322.1	348.5	353.5
62.5°	240.1	260.3	296.8	320.1	325.2
65°	212.7	235.0	271.5	292.7	298.8
67.5°	186.4	208.7	244.1	264.4	269.4
70°	162.1	182.3	217.8	233.0	235.0
72.5°	131.7	157.0	191.4	199.5	194.5
75°	106.4	131.7	161.1	158.0	151.9
77.5°	81.0	106.4	125.6	115.5	107.4
80°	57.7	83.1	87.1	71.9	67.9
82.5°	37.5	57.7	48.6	37.5	30.4
85°	19.2	27.3	15.2	12.2	10.1
87.5°	6.1	4.1	2.0	2.0	1.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)