

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: P312153

Luminaire Tested: **14FCZ2-20-UNV-L83050-CP125-W2A-U-4500K**

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: P312153
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-49)
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-L83050-CP125-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET
Light Source: (168) 4500K 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: 2080.0 lumens
Efficiency: N/A
Efficacy: 120.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

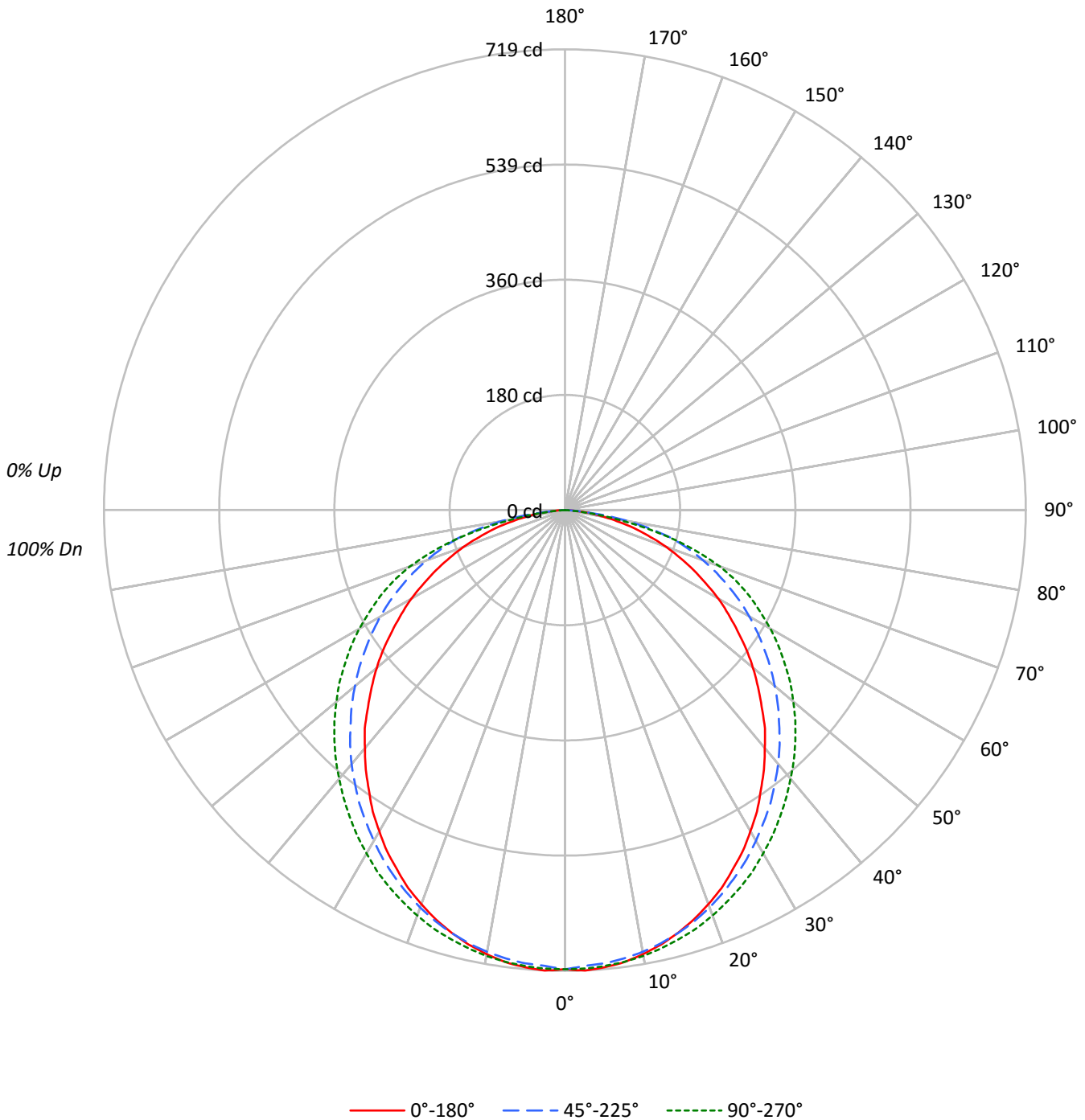
Input Watts (W): 17.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	94	97	94	91	93	90	88	90	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1928	1928	1928
5°	1934	1918	1929
10°	1923	1912	1930
15°	1902	1903	1929
20°	1874	1890	1928
25°	1839	1871	1927
30°	1798	1852	1922
35°	1751	1836	1921
40°	1704	1818	1924
45°	1652	1799	1934
50°	1604	1790	1948
55°	1543	1784	1965
60°	1488	1787	1992
65°	1412	1792	2023
70°	1325	1806	2021
75°	1201	1823	1828
80°	984	1574	1300
85°	732	744	299



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.8	3.3
10°-20°	193.7	9.3
20°-30°	291.8	14.0
30°-40°	350.1	16.8
40°-50°	364.9	17.5
50°-60°	337.9	16.2
60°-70°	273.0	13.1
70°-80°	166.4	8.0
80°-90°	34.4	1.7
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°	553.3	26.6
0°-40°	903.4	43.4
0°-60°	1606.2	77.2
0°-90°	2080.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2080.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	717	717	717	717	717	
5°	716	714	710	715	714	68
15°	683	683	683	692	692	192
25°	619	623	630	646	649	285
35°	533	541	559	579	585	334
45°	434	447	473	499	508	336
55°	329	346	380	410	419	295
65°	222	244	282	310	318	219
75°	116	141	175	178	176	121
85°	24	35	24	14	10	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	716.6	716.6	716.6	716.6	716.6
2.5°	719.3	717.0	711.9	717.0	716.1
5°	716.1	714.2	710.1	715.2	714.2
7.5°	711.5	709.6	705.9	711.9	711.0
10°	703.6	702.7	699.9	706.8	706.4
12.5°	694.3	693.8	692.4	700.3	699.9
15°	682.7	683.2	683.2	692.4	692.4
17.5°	669.7	670.7	672.5	682.7	684.1
20°	654.4	656.3	660.0	671.6	673.4
22.5°	638.6	640.0	645.6	659.5	661.4
25°	619.2	622.9	630.3	646.1	648.9
27.5°	600.6	603.9	614.1	630.3	634.9
30°	578.8	583.9	596.0	613.6	618.7
32.5°	557.9	563.5	577.4	597.8	602.5
35°	532.9	541.3	558.9	579.3	584.8
37.5°	510.2	518.1	538.0	560.3	566.8
40°	485.1	494.9	517.6	541.3	547.7
42.5°	461.9	471.2	495.8	519.9	528.7
45°	434.1	447.1	472.6	499.0	508.3
47.5°	408.6	421.6	450.8	479.1	487.5
50°	383.1	397.0	427.6	456.8	465.2
52.5°	356.7	371.5	404.4	433.7	443.4
55°	328.8	346.0	380.3	410.0	418.8
57.5°	302.4	320.0	356.7	386.8	395.6
60°	276.4	294.5	332.1	360.8	370.1
62.5°	247.7	269.0	308.0	336.3	343.2
65°	221.7	243.5	281.5	309.8	317.7
67.5°	194.3	218.0	256.0	282.0	289.4
70°	168.4	192.9	229.6	253.7	256.9
72.5°	140.5	165.6	202.7	218.0	218.0
75°	115.5	141.0	175.3	178.1	175.8
77.5°	88.1	116.4	138.7	133.1	127.5
80°	63.5	91.4	101.6	91.4	83.9
82.5°	42.7	66.3	61.2	48.7	43.1
85°	23.7	35.2	24.1	13.5	9.7
87.5°	8.8	7.9	2.3	2.3	2.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)