

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: P307870

Luminaire Tested: **14FCZ2-25-UNV-L82765-S-CP187-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: P307870
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-L82765-S-CP187-W2A-U-6500K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.187" POLYCARB SHEET
Light Source: (168) 6500K 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: 2317.0 lumens
Efficiency: N/A
Efficacy: 113.0 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

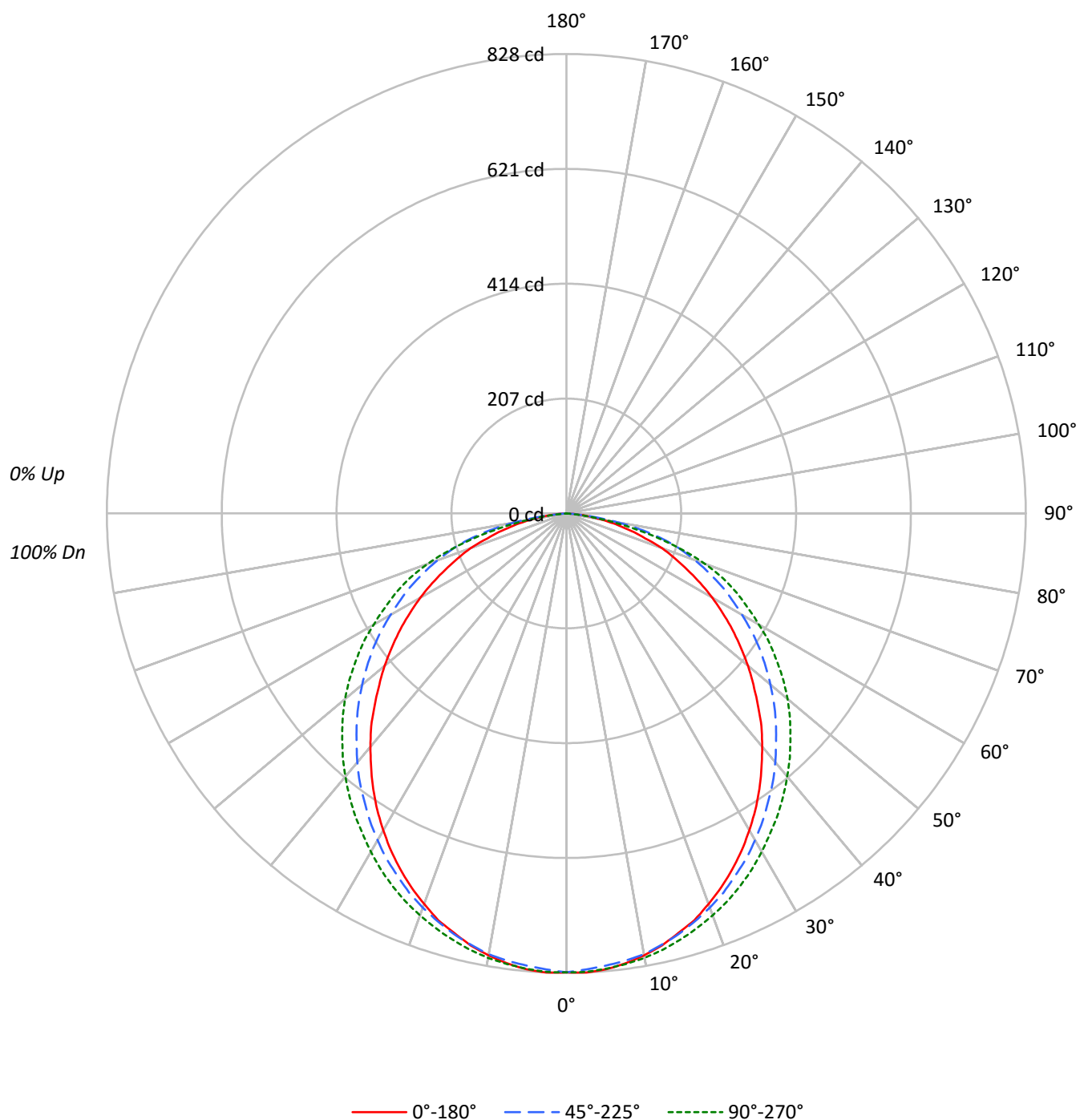
Input Watts (W): 20.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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°	2226	2226	2226
5°	2228	2209	2225
10°	2210	2204	2222
15°	2179	2186	2215
20°	2145	2165	2207
25°	2101	2139	2200
30°	2049	2113	2188
35°	1993	2083	2181
40°	1929	2058	2175
45°	1858	2033	2173
50°	1789	2010	2179
55°	1714	1994	2172
60°	1632	1966	2158
65°	1536	1961	2158
70°	1446	1943	2097
75°	1254	1900	1791
80°	1015	1531	1193
85°	673	531	355



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.1	3.4
10°-20°	222.3	9.6
20°-30°	333.4	14.4
30°-40°	397.7	17.2
40°-50°	411.1	17.7
50°-60°	375.4	16.2
60°-70°	295.4	12.7
70°-80°	172.0	7.4
80°-90°	31.7	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°	633.7	27.4
0°-40°	1031.4	44.5
0°-60°	1818.0	78.5
0°-90°	2317.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2317.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	827	827	827	827	827	
5°	825	822	818	825	824	78
15°	782	784	785	795	795	221
25°	708	711	720	738	741	326
35°	607	615	634	658	664	379
45°	488	504	534	564	571	377
55°	365	385	425	456	463	327
65°	241	266	308	332	339	240
75°	121	149	183	179	172	128
85°	22	31	17	14	12	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	827.1	827.1	827.1	827.1	827.1
2.5°	828.3	826.0	822.5	828.3	827.1
5°	824.8	822.5	817.9	824.8	823.7
7.5°	817.9	815.6	813.3	820.2	819.1
10°	808.7	807.6	806.5	814.5	813.3
12.5°	797.3	797.3	796.1	805.3	805.3
15°	782.3	783.5	784.6	795.0	795.0
17.5°	768.5	767.4	770.8	782.3	783.5
20°	749.0	751.3	755.9	769.7	770.8
22.5°	729.5	731.8	739.8	753.6	757.1
25°	707.7	711.1	720.3	737.5	741.0
27.5°	684.7	689.3	701.9	720.3	723.7
30°	659.4	666.3	680.1	700.8	704.2
32.5°	634.1	641.0	658.3	678.9	683.5
35°	606.6	614.6	634.1	658.3	664.0
37.5°	577.8	588.2	611.2	635.3	642.2
40°	549.1	560.6	585.9	611.2	619.2
42.5°	520.4	531.9	559.5	588.2	596.2
45°	488.2	504.3	534.2	564.1	570.9
47.5°	457.2	474.5	507.8	537.6	546.8
50°	427.4	444.6	480.2	511.2	520.4
52.5°	396.3	414.7	452.6	484.8	492.8
55°	365.3	384.8	425.1	456.1	463.0
57.5°	334.3	355.0	396.3	426.2	434.2
60°	303.3	325.1	365.3	395.2	400.9
62.5°	272.3	295.2	336.6	363.0	368.8
65°	241.2	266.5	307.9	332.0	338.9
67.5°	211.4	236.7	276.9	299.8	305.6
70°	183.8	206.8	247.0	264.2	266.5
72.5°	149.3	178.1	217.1	226.3	220.6
75°	120.6	149.3	182.7	179.2	172.3
77.5°	91.9	120.6	142.5	131.0	121.8
80°	65.5	94.2	98.8	81.6	77.0
82.5°	42.5	65.5	55.1	42.5	34.5
85°	21.8	31.0	17.2	13.8	11.5
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)