

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: P307811

Luminaire Tested: **14FCZ2-20-UNV-L82765-S-CP125-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: P307811
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-4000K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.125" 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: 1980.0 lumens
Efficiency: N/A
Efficacy: 118.6 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

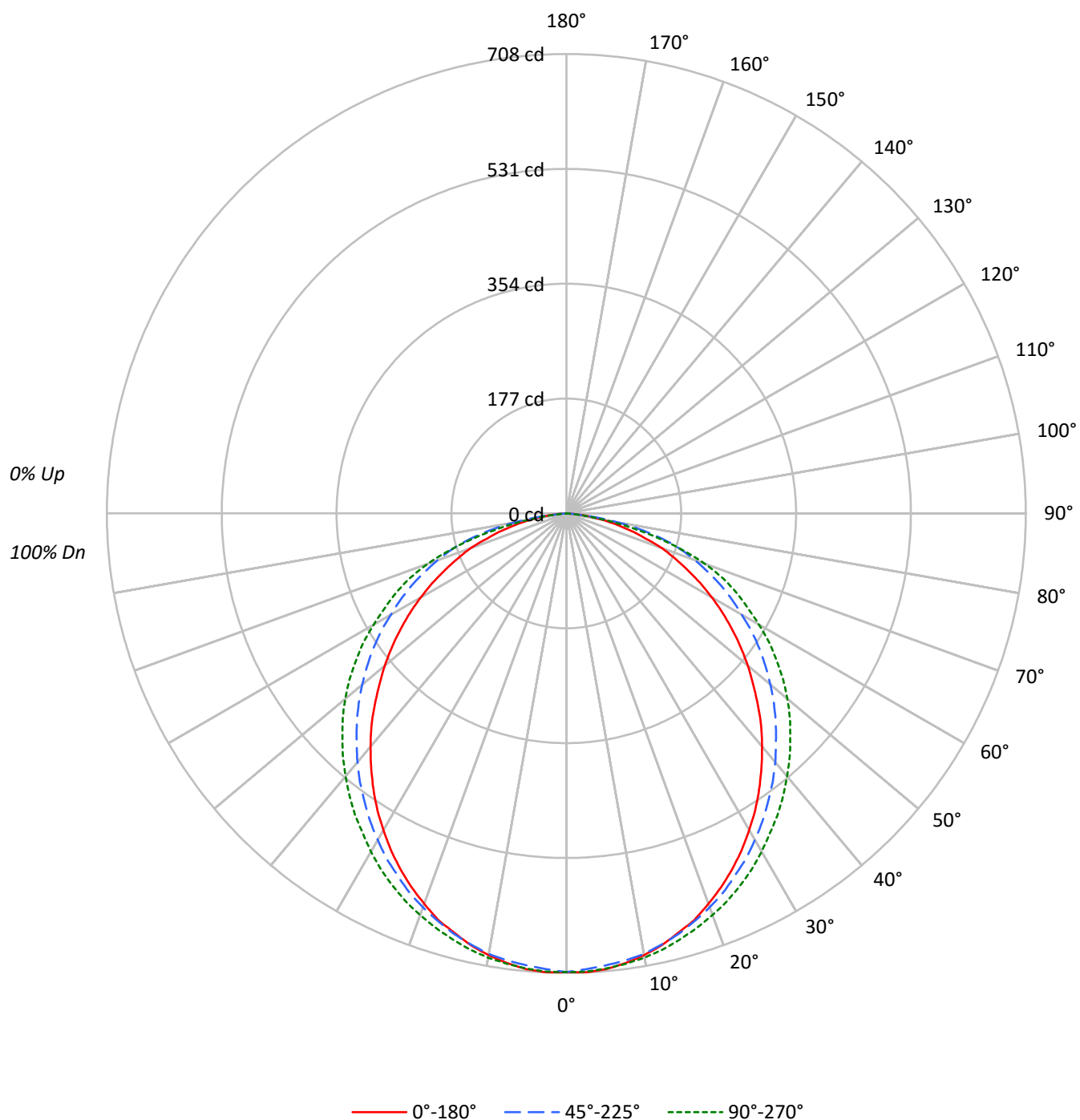
Input Watts (W): 16.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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		0
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		100
1	109	104	100	96	106	102	98	94	97	94	91		94	91	89		84
2	99	90	84	78	96	89	82	77	85	80	75		82	77	73		70
3	90	79	71	65	87	78	70	64	75	68	63		72	66	62		58
4	82	70	61	55	80	69	61	54	66	59	53		64	58	53		50
5	76	63	54	47	74	62	53	47	59	52	46		57	51	46		43
6	70	56	47	41	68	55	47	41	54	46	40		52	45	40		38
7	65	51	42	36	63	50	42	36	49	41	36		47	41	35		33
8	60	47	38	32	59	46	38	32	45	37	32		43	37	32		30
9	56	43	35	29	55	42	34	29	41	34	29		40	33	29		27
10	53	40	32	26	52	39	31	26	38	31	26		37	31	26		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1902	1902	1902
5°	1904	1888	1901
10°	1888	1883	1899
15°	1862	1868	1892
20°	1833	1850	1886
25°	1795	1828	1880
30°	1751	1806	1870
35°	1703	1780	1864
40°	1649	1759	1859
45°	1588	1737	1857
50°	1529	1718	1862
55°	1465	1704	1856
60°	1395	1680	1844
65°	1313	1675	1844
70°	1236	1661	1792
75°	1072	1623	1531
80°	868	1308	1020
85°	577	454	303



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.7	3.4
10°-20°	189.9	9.6
20°-30°	284.9	14.4
30°-40°	339.9	17.2
40°-50°	351.3	17.7
50°-60°	320.8	16.2
60°-70°	252.4	12.7
70°-80°	146.9	7.4
80°-90°	27.1	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°	541.6	27.4
0°-40°	881.4	44.5
0°-60°	1553.5	78.5
0°-90°	1980.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1980.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	707	707	707	707	707	
5°	705	703	699	705	704	67
15°	668	670	670	679	679	189
25°	605	608	616	630	633	278
35°	518	525	542	562	567	324
45°	417	431	456	482	488	322
55°	312	329	363	390	396	279
65°	206	228	263	284	290	205
75°	103	128	156	153	147	110
85°	19	26	15	12	10	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	706.8	706.8	706.8	706.8	706.8
2.5°	707.8	705.8	702.9	707.8	706.8
5°	704.9	702.9	699.0	704.9	703.9
7.5°	699.0	697.0	695.0	700.9	700.0
10°	691.1	690.1	689.2	696.0	695.0
12.5°	681.3	681.3	680.3	688.2	688.2
15°	668.5	669.5	670.5	679.3	679.3
17.5°	656.8	655.8	658.7	668.5	669.5
20°	640.1	642.0	646.0	657.7	658.7
22.5°	623.4	625.3	632.2	644.0	646.9
25°	604.7	607.7	615.5	630.3	633.2
27.5°	585.1	589.0	599.8	615.5	618.5
30°	563.5	569.4	581.2	598.8	601.8
32.5°	541.9	547.8	562.5	580.2	584.1
35°	518.3	525.2	541.9	562.5	567.4
37.5°	493.8	502.6	522.3	542.9	548.8
40°	469.3	479.1	500.7	522.3	529.1
42.5°	444.7	454.5	478.1	502.6	509.5
45°	417.2	431.0	456.5	482.0	487.9
47.5°	390.7	405.4	433.9	459.4	467.3
50°	365.2	379.9	410.4	436.9	444.7
52.5°	338.7	354.4	386.8	414.3	421.2
55°	312.2	328.9	363.2	389.7	395.6
57.5°	285.7	303.3	338.7	364.2	371.1
60°	259.2	277.8	312.2	337.7	342.6
62.5°	232.7	252.3	287.6	310.2	315.1
65°	206.2	227.8	263.1	283.7	289.6
67.5°	180.6	202.2	236.6	256.2	261.1
70°	157.1	176.7	211.1	225.8	227.8
72.5°	127.6	152.2	185.5	193.4	188.5
75°	103.1	127.6	156.1	153.1	147.3
77.5°	78.5	103.1	121.7	111.9	104.1
80°	56.0	80.5	84.4	69.7	65.8
82.5°	36.3	56.0	47.1	36.3	29.5
85°	18.7	26.5	14.7	11.8	9.8
87.5°	5.9	3.9	2.0	2.0	1.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)