

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: P308359

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-RDP-CP187-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: P308359
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-20HE-UNV-L82765-RDP-CP187-W2A-U-3500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.187" POLYCARB SHEET
Light Source: (168) 3000K 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: 1190.0 lumens
Efficiency: N/A
Efficacy: 70.8 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

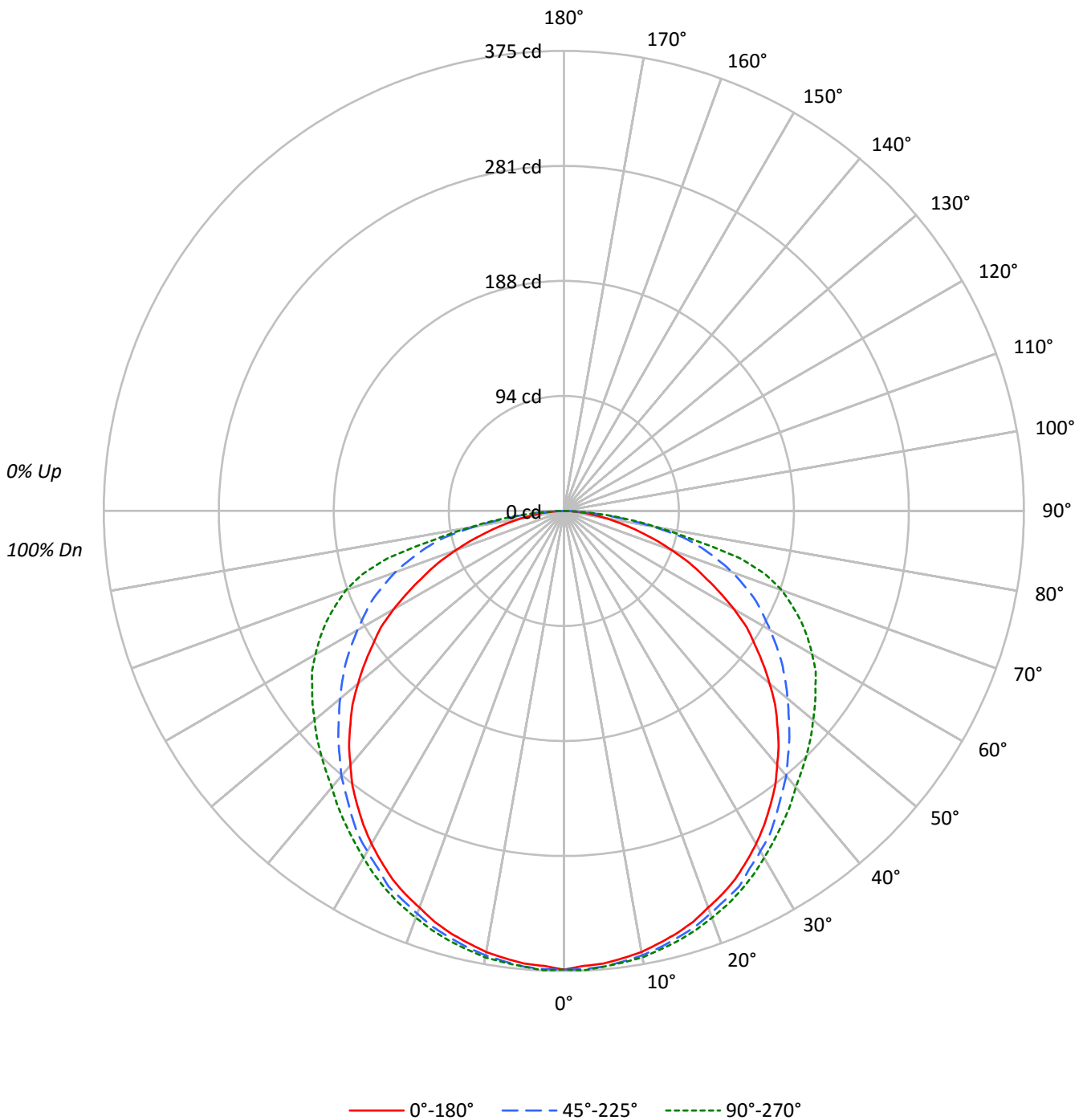
Input Watts (W): 16.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1006	1006	1006
5°	1000	1007	1007
10°	997	1005	1009
15°	993	1002	1010
20°	985	1000	1010
25°	982	1003	1014
30°	974	996	1015
35°	964	992	1021
40°	950	990	1033
45°	936	989	1066
50°	916	997	1110
55°	891	1019	1175
60°	862	1046	1258
65°	803	1098	1360
70°	737	1150	1488
75°	647	1210	1538
80°	556	1153	1207
85°	488	837	920



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.4	3.0
10°-20°	101.5	8.5
20°-30°	154.9	13.0
30°-40°	189.1	15.9
40°-50°	202.2	17.0
50°-60°	195.2	16.4
60°-70°	168.0	14.1
70°-80°	113.7	9.6
80°-90°	30.0	2.5
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°	291.8	24.5
0°-40°	480.9	40.4
0°-60°	878.3	73.8
0°-90°	1190.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1190.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	374	374	374	374	374	
5°	370	371	373	373	373	35
15°	356	357	360	362	362	101
25°	331	333	338	340	341	152
35°	293	296	302	308	311	184
45°	246	250	260	273	280	190
55°	190	196	217	239	250	170
65°	126	138	172	200	214	125
75°	62	82	116	140	148	67
85°	16	22	27	28	30	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	373.8	373.8	373.8	373.8	373.8
2.5°	371.2	372.0	373.8	373.8	374.7
5°	370.3	371.2	372.9	372.9	372.9
7.5°	367.7	368.5	370.3	371.2	371.2
10°	365.0	365.9	367.7	368.5	369.4
12.5°	360.7	361.5	364.2	365.9	365.9
15°	356.3	357.2	359.8	361.5	362.4
17.5°	351.0	352.8	355.4	357.2	358.0
20°	344.0	345.8	349.3	351.9	352.8
22.5°	337.9	339.7	343.2	345.8	347.5
25°	330.9	332.7	337.9	339.7	341.4
27.5°	322.2	323.9	328.3	331.8	334.4
30°	313.4	315.1	320.4	324.8	326.5
32.5°	303.8	306.4	312.5	316.0	318.6
35°	293.3	295.9	302.0	308.1	310.8
37.5°	282.8	285.4	291.5	299.4	302.9
40°	270.5	274.0	281.9	292.4	294.1
42.5°	259.1	263.5	270.5	282.8	287.1
45°	246.0	250.4	260.0	273.1	280.1
47.5°	233.7	238.1	248.6	264.4	273.1
50°	218.9	225.0	238.1	256.5	265.2
52.5°	204.8	210.1	227.6	247.7	258.2
55°	190.0	196.1	217.1	239.0	250.4
57.5°	176.8	182.1	205.7	230.2	243.4
60°	160.2	167.2	194.3	220.6	233.7
62.5°	142.7	153.2	183.0	210.1	224.1
65°	126.1	138.3	172.5	199.6	213.6
67.5°	111.2	124.3	159.3	188.2	201.3
70°	93.7	110.3	146.2	174.2	189.1
72.5°	77.9	96.3	131.3	159.3	172.5
75°	62.2	82.3	116.4	140.1	147.9
77.5°	48.1	67.4	99.8	106.8	107.7
80°	35.9	53.4	74.4	75.3	77.9
82.5°	24.5	37.6	48.1	52.5	53.4
85°	15.8	21.9	27.1	28.0	29.8
87.5°	7.0	7.9	9.6	8.8	8.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)