

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: P308395

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-RDP-CP125-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: P308395
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: 22FCZ2-24HE-UNV-L82765-RDP-CP125-W2A-U-3500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" 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: 1402.0 lumens
Efficiency: N/A
Efficacy: 73.8 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

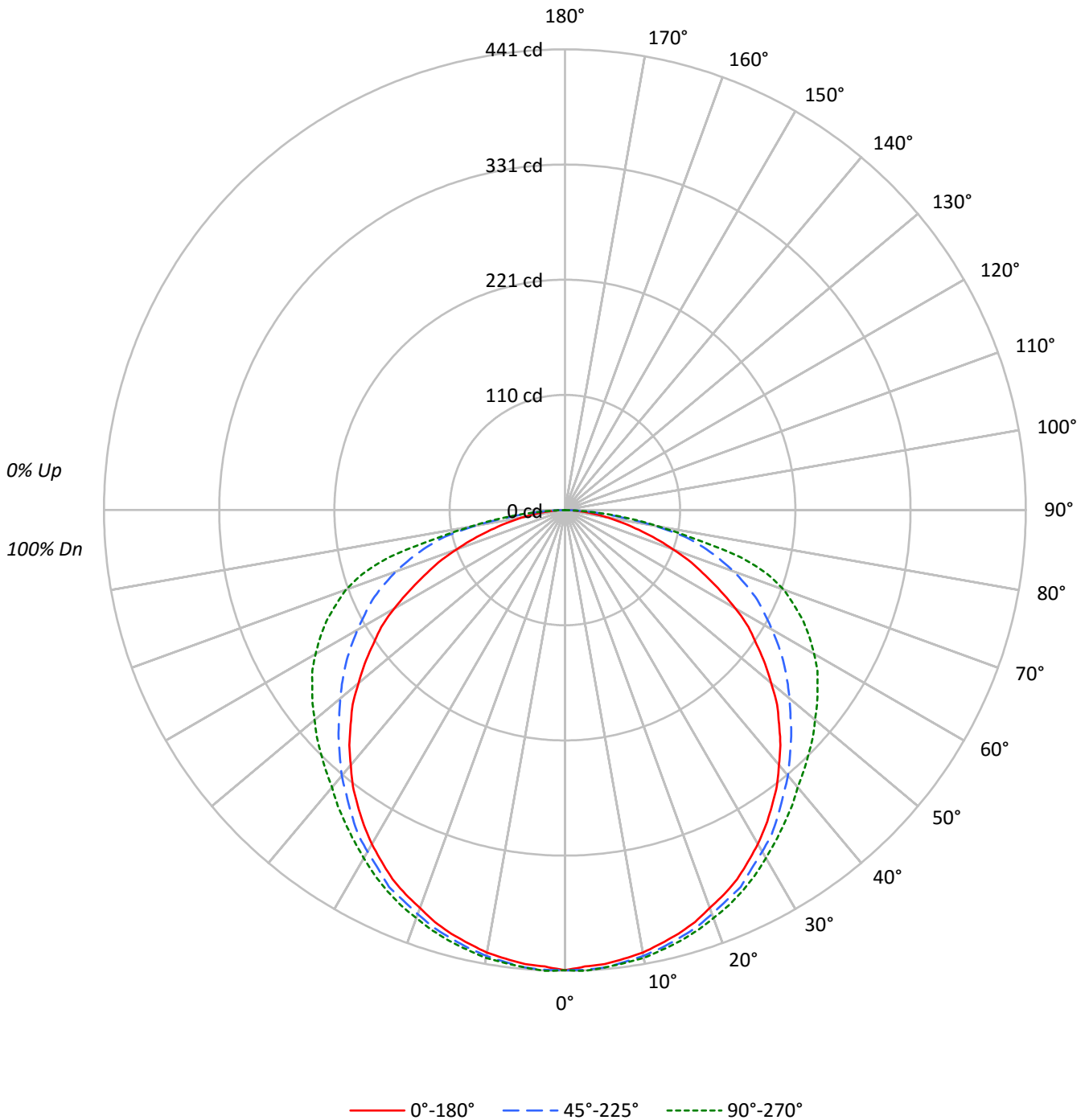
Input Watts (W): 19
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1185	1185	1185
5°	1179	1187	1187
10°	1175	1184	1189
15°	1170	1181	1190
20°	1161	1178	1190
25°	1158	1182	1194
30°	1147	1173	1195
35°	1135	1169	1203
40°	1120	1167	1217
45°	1103	1166	1256
50°	1079	1174	1308
55°	1050	1200	1384
60°	1016	1232	1482
65°	946	1294	1603
70°	869	1355	1753
75°	761	1426	1812
80°	656	1359	1423
85°	574	988	1084



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.7	3.0
10°-20°	119.6	8.5
20°-30°	182.5	13.0
30°-40°	222.8	15.9
40°-50°	238.2	17.0
50°-60°	230.0	16.4
60°-70°	198.0	14.1
70°-80°	133.9	9.6
80°-90°	35.3	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°	343.8	24.5
0°-40°	566.6	40.4
0°-60°	1034.8	73.8
0°-90°	1402.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1402.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	440	440	440	440	440	
5°	436	437	439	439	439	41
15°	420	421	424	426	427	118
25°	390	392	398	400	402	179
35°	346	349	356	363	366	216
45°	290	295	306	322	330	224
55°	224	231	256	282	295	201
65°	148	163	203	235	252	148
75°	73	97	137	165	174	79
85°	19	26	32	33	35	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	440.4	440.4	440.4	440.4	440.4
2.5°	437.3	438.3	440.4	440.4	441.4
5°	436.3	437.3	439.4	439.4	439.4
7.5°	433.2	434.2	436.3	437.3	437.3
10°	430.1	431.1	433.2	434.2	435.2
12.5°	424.9	426.0	429.0	431.1	431.1
15°	419.8	420.8	423.9	426.0	427.0
17.5°	413.6	415.6	418.7	420.8	421.8
20°	405.3	407.4	411.5	414.6	415.6
22.5°	398.1	400.2	404.3	407.4	409.5
25°	389.9	391.9	398.1	400.2	402.2
27.5°	379.5	381.6	386.8	390.9	394.0
30°	369.2	371.3	377.5	382.6	384.7
32.5°	357.9	361.0	368.2	372.3	375.4
35°	345.5	348.6	355.8	363.0	366.1
37.5°	333.1	336.2	343.4	352.7	356.9
40°	318.7	322.8	332.1	344.5	346.5
42.5°	305.3	310.4	318.7	333.1	338.3
45°	289.8	295.0	306.3	321.8	330.0
47.5°	275.4	280.5	292.9	311.5	321.8
50°	257.8	265.1	280.5	302.2	312.5
52.5°	241.3	247.5	268.2	291.9	304.3
55°	223.8	231.0	255.8	281.6	295.0
57.5°	208.3	214.5	242.4	271.2	286.7
60°	188.7	197.0	229.0	259.9	275.4
62.5°	168.1	180.5	215.6	247.5	264.0
65°	148.5	163.0	203.2	235.2	251.7
67.5°	131.0	146.5	187.7	221.7	237.2
70°	110.4	130.0	172.2	205.2	222.8
72.5°	91.8	113.5	154.7	187.7	203.2
75°	73.2	96.9	137.2	165.0	174.3
77.5°	56.7	79.4	117.6	125.8	126.9
80°	42.3	62.9	87.7	88.7	91.8
82.5°	28.9	44.3	56.7	61.9	62.9
85°	18.6	25.8	32.0	33.0	35.1
87.5°	8.3	9.3	11.3	10.3	10.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)