

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: P308394

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-RDP-CP125-W2A-U-3000K**

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: P308394
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-3000K
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: 1355.0 lumens
Efficiency: N/A
Efficacy: 72.1 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

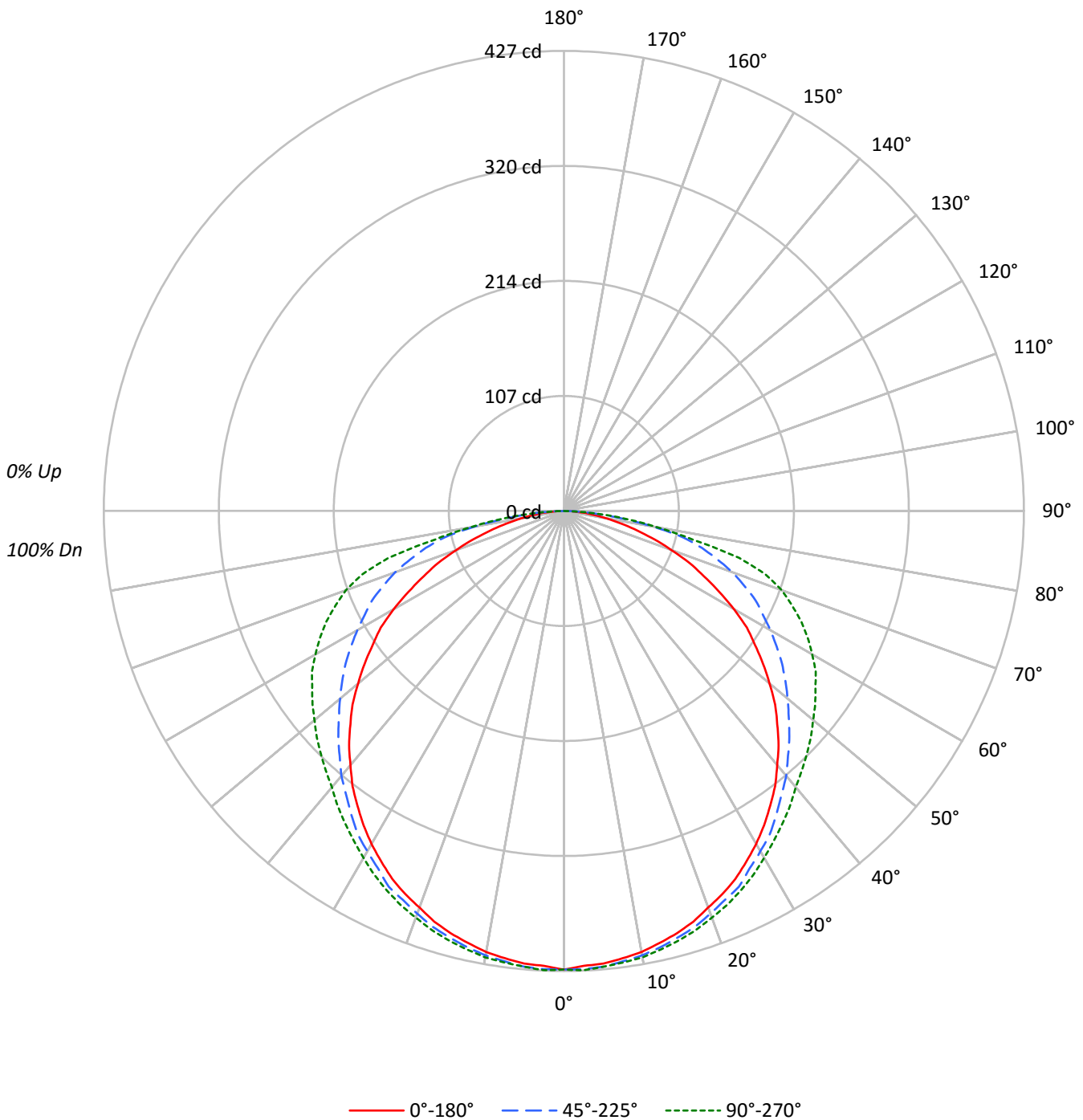
Input Watts (W): 18.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1145	1145	1145
5°	1139	1147	1147
10°	1136	1144	1149
15°	1130	1141	1150
20°	1122	1139	1150
25°	1119	1143	1154
30°	1109	1134	1155
35°	1097	1130	1163
40°	1082	1128	1176
45°	1066	1126	1214
50°	1043	1135	1264
55°	1015	1160	1338
60°	982	1191	1432
65°	914	1251	1549
70°	840	1310	1694
75°	736	1379	1752
80°	634	1313	1375
85°	553	954	1047



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.3	3.0
10°-20°	115.6	8.5
20°-30°	176.4	13.0
30°-40°	215.4	15.9
40°-50°	230.3	17.0
50°-60°	222.3	16.4
60°-70°	191.3	14.1
70°-80°	129.4	9.6
80°-90°	34.2	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°	332.2	24.5
0°-40°	547.6	40.4
0°-60°	1000.1	73.8
0°-90°	1355.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1355.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	426	426	426	426	426	
5°	422	423	425	425	425	40
15°	406	407	410	412	413	114
25°	377	379	385	387	389	173
35°	334	337	344	351	354	209
45°	280	285	296	311	319	216
55°	216	223	247	272	285	194
65°	144	158	196	227	243	143
75°	71	94	133	160	168	76
85°	18	25	31	32	34	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	425.6	425.6	425.6	425.6	425.6
2.5°	422.6	423.6	425.6	425.6	426.6
5°	421.6	422.6	424.6	424.6	424.6
7.5°	418.7	419.6	421.6	422.6	422.6
10°	415.7	416.7	418.7	419.6	420.6
12.5°	410.7	411.7	414.7	416.7	416.7
15°	405.7	406.7	409.7	411.7	412.7
17.5°	399.7	401.7	404.7	406.7	407.7
20°	391.7	393.7	397.7	400.7	401.7
22.5°	384.8	386.8	390.7	393.7	395.7
25°	376.8	378.8	384.8	386.8	388.7
27.5°	366.8	368.8	373.8	377.8	380.8
30°	356.9	358.8	364.8	369.8	371.8
32.5°	345.9	348.9	355.9	359.8	362.8
35°	333.9	336.9	343.9	350.9	353.9
37.5°	322.0	325.0	331.9	340.9	344.9
40°	308.0	312.0	321.0	332.9	334.9
42.5°	295.0	300.0	308.0	322.0	326.9
45°	280.1	285.1	296.0	311.0	319.0
47.5°	266.1	271.1	283.1	301.0	311.0
50°	249.2	256.2	271.1	292.1	302.0
52.5°	233.2	239.2	259.2	282.1	294.1
55°	216.3	223.3	247.2	272.1	285.1
57.5°	201.4	207.3	234.2	262.2	277.1
60°	182.4	190.4	221.3	251.2	266.1
62.5°	162.5	174.4	208.3	239.2	255.2
65°	143.5	157.5	196.4	227.3	243.2
67.5°	126.6	141.5	181.4	214.3	229.3
70°	106.7	125.6	166.5	198.4	215.3
72.5°	88.7	109.6	149.5	181.4	196.4
75°	70.8	93.7	132.6	159.5	168.5
77.5°	54.8	76.8	113.6	121.6	122.6
80°	40.9	60.8	84.7	85.7	88.7
82.5°	27.9	42.9	54.8	59.8	60.8
85°	17.9	24.9	30.9	31.9	33.9
87.5°	8.0	9.0	11.0	10.0	10.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)