

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: P308456

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-RDP-CP250-W2A-U-2700K**

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: P308456
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: 22FCZ2-29HE-UNV-L82765-RDP-CP250-W2A-U-2700K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.250" 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: 1463.0 lumens
Efficiency: N/A
Efficacy: 65.3 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

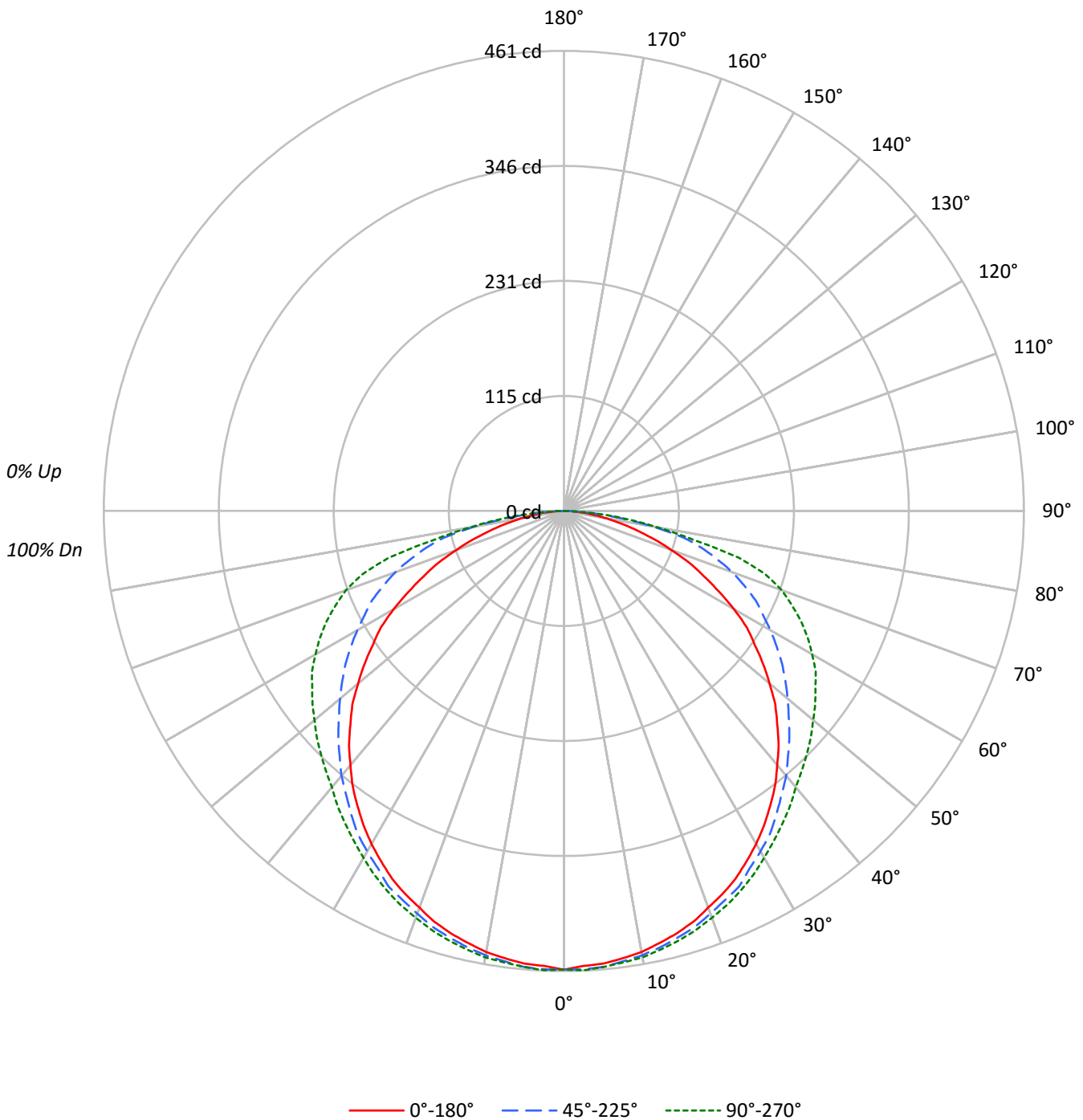
Input Watts (W): 22.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P308456

CATALOG NUMBER: 22FCZ2-29HE-UNV-L82765-RDP-CP250-W2A-U-2700K

Luminous Intensity Polar Plot





TEST NUMBER: P308456

CATALOG NUMBER: 22FCZ2-29HE-UNV-L82765-RDP-CP250-W2A-U-2700K

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°	1237	1237	1237
5°	1230	1239	1239
10°	1226	1235	1241
15°	1220	1232	1241
20°	1211	1230	1242
25°	1208	1233	1246
30°	1197	1224	1247
35°	1184	1220	1255
40°	1168	1217	1270
45°	1151	1216	1311
50°	1127	1225	1365
55°	1095	1252	1444
60°	1060	1286	1547
65°	987	1350	1672
70°	906	1414	1829
75°	794	1488	1891
80°	683	1418	1485
85°	599	1031	1130



TEST NUMBER: P308456

CATALOG NUMBER: 22FCZ2-29HE-UNV-L82765-RDP-CP250-W2A-U-2700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.5	3.0
10°-20°	124.8	8.5
20°-30°	190.4	13.0
30°-40°	232.5	15.9
40°-50°	248.6	17.0
50°-60°	240.0	16.4
60°-70°	206.6	14.1
70°-80°	139.8	9.6
80°-90°	36.9	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°	358.7	24.5
0°-40°	591.2	40.4
0°-60°	1079.8	73.8
0°-90°	1463.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1463.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	460	460	460	460	460	
5°	455	456	458	458	458	43
15°	438	439	442	444	446	124
25°	407	409	415	418	420	187
35°	360	364	371	379	382	226
45°	302	308	320	336	344	233
55°	234	241	267	294	308	209
65°	155	170	212	245	263	154
75°	76	101	143	172	182	82
85°	19	27	33	34	37	22
90°	0	0	0	0	0	



TEST NUMBER: P308456

CATALOG NUMBER: 22FCZ2-29HE-UNV-L82765-RDP-CP250-W2A-U-2700K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	459.6	459.6	459.6	459.6	459.6
2.5°	456.3	457.4	459.6	459.6	460.6
5°	455.2	456.3	458.5	458.5	458.5
7.5°	452.0	453.1	455.2	456.3	456.3
10°	448.8	449.9	452.0	453.1	454.2
12.5°	443.4	444.5	447.7	449.9	449.9
15°	438.0	439.1	442.3	444.5	445.6
17.5°	431.6	433.7	437.0	439.1	440.2
20°	423.0	425.1	429.4	432.6	433.7
22.5°	415.4	417.6	421.9	425.1	427.3
25°	406.8	409.0	415.4	417.6	419.7
27.5°	396.1	398.2	403.6	407.9	411.1
30°	385.3	387.4	393.9	399.3	401.4
32.5°	373.5	376.7	384.2	388.5	391.8
35°	360.5	363.8	371.3	378.8	382.1
37.5°	347.6	350.9	358.4	368.1	372.4
40°	332.6	336.9	346.5	359.5	361.6
42.5°	318.6	323.9	332.6	347.6	353.0
45°	302.4	307.8	319.6	335.8	344.4
47.5°	287.4	292.7	305.7	325.0	335.8
50°	269.1	276.6	292.7	315.3	326.1
52.5°	251.8	258.3	279.8	304.6	317.5
55°	233.5	241.1	266.9	293.8	307.8
57.5°	217.4	223.9	252.9	283.1	299.2
60°	197.0	205.6	238.9	271.2	287.4
62.5°	175.4	188.3	224.9	258.3	275.5
65°	155.0	170.0	212.0	245.4	262.6
67.5°	136.7	152.8	195.9	231.4	247.5
70°	115.2	135.6	179.7	214.2	232.5
72.5°	95.8	118.4	161.4	195.9	212.0
75°	76.4	101.2	143.1	172.2	181.9
77.5°	59.2	82.9	122.7	131.3	132.4
80°	44.1	65.7	91.5	92.6	95.8
82.5°	30.1	46.3	59.2	64.6	65.7
85°	19.4	26.9	33.4	34.4	36.6
87.5°	8.6	9.7	11.8	10.8	10.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)