

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: P308417

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-RDP-CP250-W2A-U-5500K**

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: P308417
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-CP250-W2A-U-5500K
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: 1418.0 lumens
Efficiency: N/A
Efficacy: 73.1 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

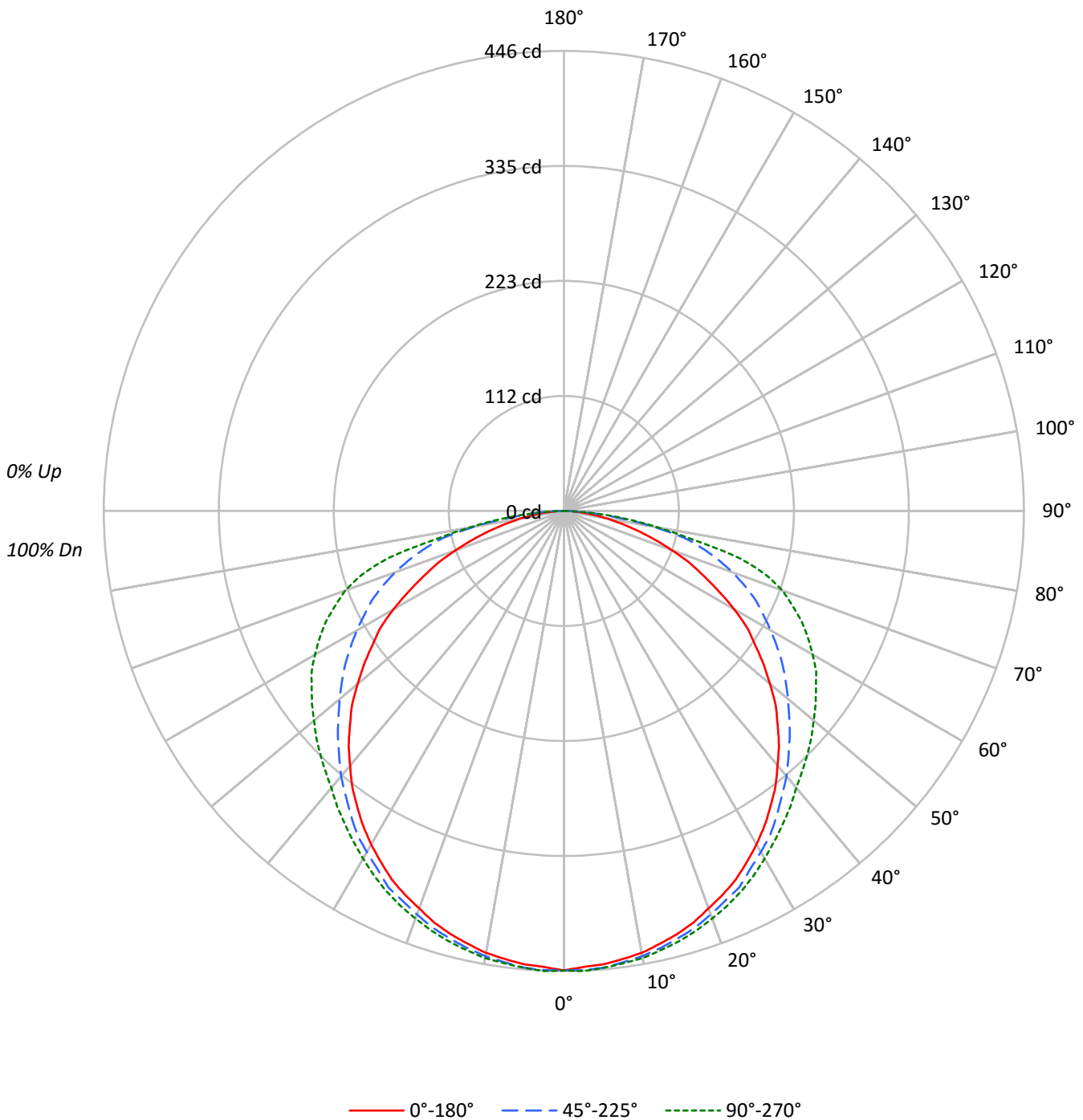
Input Watts (W): 19.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	82					82			
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67					67			
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55					55			
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47					47			
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40					40			
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35					35			
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31					31			
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27					27			
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24					24			
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22					22			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1199	1199	1199
5°	1192	1200	1200
10°	1189	1197	1203
15°	1183	1194	1203
20°	1174	1192	1204
25°	1171	1195	1208
30°	1160	1186	1209
35°	1148	1182	1216
40°	1132	1180	1231
45°	1115	1179	1270
50°	1092	1188	1323
55°	1062	1214	1399
60°	1027	1246	1499
65°	956	1309	1621
70°	878	1371	1773
75°	770	1442	1833
80°	663	1375	1438
85°	580	997	1096



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.1	3.0
10°-20°	121.0	8.5
20°-30°	184.6	13.0
30°-40°	225.4	15.9
40°-50°	241.0	17.0
50°-60°	232.6	16.4
60°-70°	200.2	14.1
70°-80°	135.5	9.6
80°-90°	35.7	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°	347.7	24.5
0°-40°	573.0	40.4
0°-60°	1046.6	73.8
0°-90°	1418.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1418.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	445	445	445	445	445	
5°	441	442	444	444	444	42
15°	425	426	429	431	432	120
25°	394	396	403	405	407	181
35°	350	353	360	367	370	219
45°	293	298	310	326	334	226
55°	226	234	259	285	298	203
65°	150	165	206	238	254	149
75°	74	98	139	167	176	79
85°	19	26	32	33	36	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	445.4	445.4	445.4	445.4	445.4
2.5°	442.3	443.3	445.4	445.4	446.5
5°	441.2	442.3	444.4	444.4	444.4
7.5°	438.1	439.2	441.2	442.3	442.3
10°	435.0	436.0	438.1	439.2	440.2
12.5°	429.8	430.8	433.9	436.0	436.0
15°	424.6	425.6	428.7	430.8	431.9
17.5°	418.3	420.4	423.5	425.6	426.6
20°	410.0	412.0	416.2	419.3	420.4
22.5°	402.6	404.7	408.9	412.0	414.1
25°	394.3	396.4	402.6	404.7	406.8
27.5°	383.9	386.0	391.2	395.3	398.5
30°	373.4	375.5	381.8	387.0	389.1
32.5°	362.0	365.1	372.4	376.6	379.7
35°	349.5	352.6	359.9	367.2	370.3
37.5°	336.9	340.1	347.4	356.8	360.9
40°	322.3	326.5	335.9	348.4	350.5
42.5°	308.8	314.0	322.3	336.9	342.1
45°	293.1	298.3	309.8	325.5	333.8
47.5°	278.5	283.7	296.3	315.0	325.5
50°	260.8	268.1	283.7	305.6	316.1
52.5°	244.1	250.4	271.2	295.2	307.7
55°	226.4	233.7	258.7	284.8	298.3
57.5°	210.7	217.0	245.1	274.3	290.0
60°	190.9	199.2	231.6	262.9	278.5
62.5°	170.0	182.5	218.0	250.4	267.0
65°	150.2	164.8	205.5	237.8	254.5
67.5°	132.5	148.1	189.9	224.3	239.9
70°	111.6	131.4	174.2	207.6	225.3
72.5°	92.8	114.7	156.5	189.9	205.5
75°	74.1	98.1	138.7	166.9	176.3
77.5°	57.4	80.3	118.9	127.3	128.3
80°	42.8	63.6	88.7	89.7	92.8
82.5°	29.2	44.9	57.4	62.6	63.6
85°	18.8	26.1	32.3	33.4	35.5
87.5°	8.3	9.4	11.5	10.4	10.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)