

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: P308406

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-RDP-CP187-W2A-U-4500K**

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: P308406  
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-CP187-W2A-U-4500K  
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**

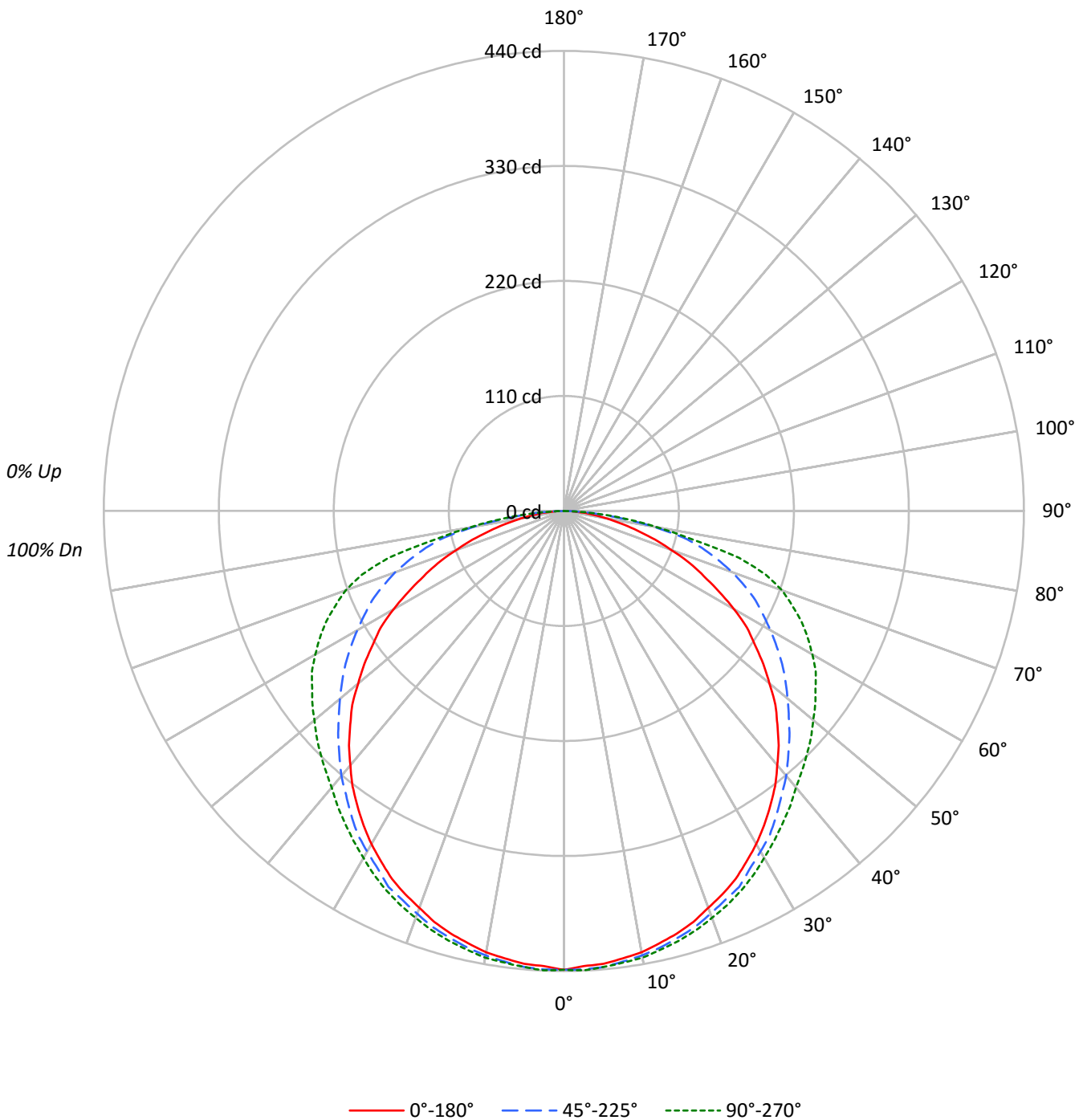
Lumens per Lamp: N/A  
Luminaire Lumens: 1397.0 lumens  
Efficiency: N/A  
Efficacy: 72.4 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	1181	1181	1181
5°	1174	1183	1183
10°	1171	1179	1185
15°	1165	1177	1185
20°	1157	1174	1186
25°	1154	1178	1190
30°	1143	1169	1191
35°	1131	1165	1198
40°	1116	1162	1213
45°	1099	1161	1252
50°	1075	1170	1304
55°	1046	1196	1379
60°	1012	1228	1477
65°	942	1289	1597
70°	865	1350	1747
75°	759	1421	1806
80°	652	1354	1418
85°	571	985	1078



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	41.5	3.0
10°-20°	119.2	8.5
20°-30°	181.8	13.0
30°-40°	222.0	15.9
40°-50°	237.4	17.0
50°-60°	229.1	16.4
60°-70°	197.2	14.1
70°-80°	133.5	9.6
80°-90°	35.2	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°	342.5	24.5
0°-40°	564.5	40.4
0°-60°	1031.1	73.8
0°-90°	1397.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1397.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	439	439	439	439	439	
5°	435	436	438	438	438	41
15°	418	419	422	424	426	118
25°	388	390	397	399	401	179
35°	344	347	355	362	365	215
45°	289	294	305	321	329	223
55°	223	230	255	281	294	200
65°	148	162	202	234	251	147
75°	73	97	137	164	174	78
85°	18	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°	438.8	438.8	438.8	438.8	438.8
2.5°	435.7	436.8	438.8	438.8	439.8
5°	434.7	435.7	437.8	437.8	437.8
7.5°	431.6	432.7	434.7	435.7	435.7
10°	428.5	429.6	431.6	432.7	433.7
12.5°	423.4	424.4	427.5	429.6	429.6
15°	418.3	419.3	422.4	424.4	425.5
17.5°	412.1	414.2	417.2	419.3	420.3
20°	403.9	405.9	410.0	413.1	414.2
22.5°	396.7	398.7	402.9	405.9	408.0
25°	388.5	390.5	396.7	398.7	400.8
27.5°	378.2	380.2	385.4	389.5	392.6
30°	367.9	370.0	376.1	381.3	383.3
32.5°	356.6	359.7	366.9	371.0	374.1
35°	344.3	347.4	354.6	361.7	364.8
37.5°	331.9	335.0	342.2	351.5	355.6
40°	317.6	321.7	330.9	343.2	345.3
42.5°	304.2	309.3	317.6	331.9	337.1
45°	288.8	293.9	305.2	320.6	328.9
47.5°	274.4	279.5	291.9	310.4	320.6
50°	256.9	264.1	279.5	301.1	311.4
52.5°	240.5	246.6	267.2	290.8	303.2
55°	223.0	230.2	254.9	280.6	293.9
57.5°	207.6	213.8	241.5	270.3	285.7
60°	188.1	196.3	228.1	259.0	274.4
62.5°	167.5	179.8	214.8	246.6	263.1
65°	148.0	162.4	202.5	234.3	250.8
67.5°	130.5	145.9	187.0	221.0	236.4
70°	110.0	129.5	171.6	204.5	222.0
72.5°	91.5	113.0	154.2	187.0	202.5
75°	73.0	96.6	136.7	164.4	173.7
77.5°	56.5	79.1	117.2	125.4	126.4
80°	42.1	62.7	87.4	88.4	91.5
82.5°	28.8	44.2	56.5	61.7	62.7
85°	18.5	25.7	31.9	32.9	34.9
87.5°	8.2	9.2	11.3	10.3	10.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)