

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: P310577

Luminaire Tested: **24FCZ2-30-UNV-L82765-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: P310577
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-15)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-30-UNV-L82765-CP250-W2A-U-5500K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.250" POLYCARB SHEET
Light Source: (168) 5500K 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: 2676.0 lumens
Efficiency: N/A
Efficacy: 111.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

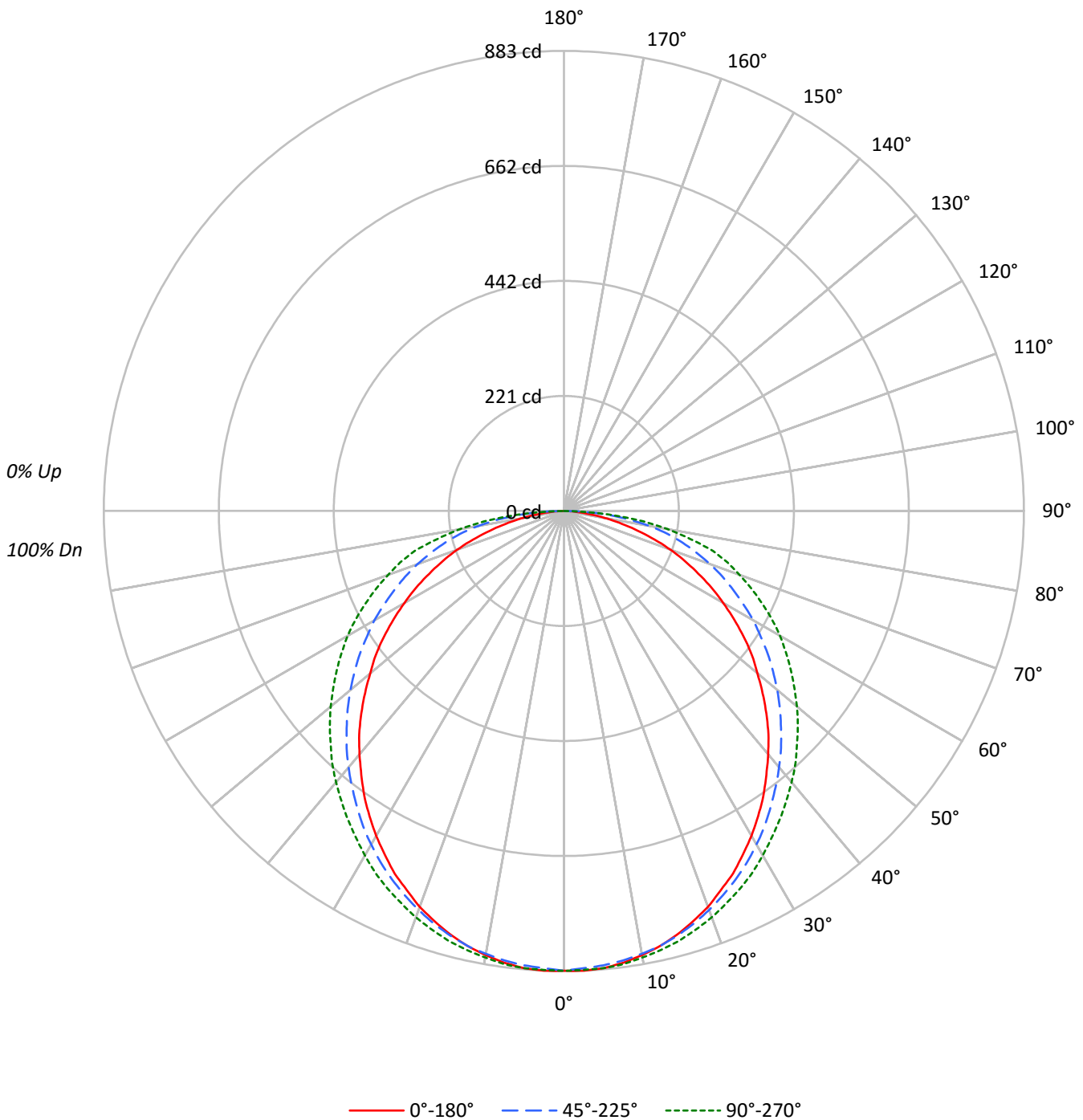
Input Watts (W): 24.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	87	88	86	84	82					82			
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67					67			
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56					56			
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47					47			
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41					41			
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36					36			
7	64	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31					31			
8	59	45	37	31	57	45	36	30	43	36	30	42	35	30	41	34	30	28					28			
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25					25			
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23					23			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1187	1187	1187
5°	1189	1182	1189
10°	1183	1179	1189
15°	1172	1175	1190
20°	1158	1167	1189
25°	1140	1159	1188
30°	1119	1149	1186
35°	1097	1137	1187
40°	1071	1129	1195
45°	1046	1122	1204
50°	1015	1119	1223
55°	989	1121	1247
60°	951	1130	1290
65°	907	1142	1337
70°	859	1177	1411
75°	766	1228	1541
80°	653	1300	1575
85°	466	1289	1508



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.5	3.1
10°-20°	238.8	8.9
20°-30°	360.7	13.5
30°-40°	434.7	16.2
40°-50°	456.4	17.1
50°-60°	427.0	16.0
60°-70°	352.6	13.2
70°-80°	240.3	9.0
80°-90°	82.0	3.1
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°	683.0	25.5
0°-40°	1117.8	41.8
0°-60°	2001.2	74.8
0°-90°	2676.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2676.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	882	882	882	882	882	
5°	881	880	875	881	881	84
15°	842	843	844	852	854	237
25°	768	772	780	796	800	353
35°	668	675	692	716	723	417
45°	550	561	590	622	633	424
55°	422	439	478	517	532	376
65°	285	309	359	404	420	283
75°	147	181	236	281	296	157
85°	30	60	84	94	98	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	882.5	882.5	882.5	882.5	882.5
2.5°	883.4	882.5	878.1	882.5	881.6
5°	880.7	879.9	875.4	880.7	880.7
7.5°	874.5	874.5	870.1	876.3	877.2
10°	865.7	865.7	863.0	870.1	870.1
12.5°	855.0	855.0	855.0	862.1	863.0
15°	841.7	842.6	843.5	852.3	854.1
17.5°	825.7	827.5	830.1	840.8	842.6
20°	808.8	810.6	815.0	827.5	830.1
22.5°	787.5	792.0	798.2	812.4	815.0
25°	768.0	771.5	780.4	795.5	800.0
27.5°	744.0	749.3	760.9	776.9	783.1
30°	720.0	725.4	739.6	758.2	763.5
32.5°	694.3	702.3	717.4	736.9	743.1
35°	667.7	674.8	692.5	715.6	722.7
37.5°	638.4	648.1	667.7	692.5	701.4
40°	610.0	620.6	642.8	669.4	680.1
42.5°	581.5	592.2	617.1	647.2	657.9
45°	549.6	561.1	589.5	621.5	633.0
47.5°	517.6	531.8	562.9	596.6	609.1
50°	484.8	500.7	534.5	570.0	584.2
52.5°	455.5	470.6	506.1	544.3	557.6
55°	421.7	438.6	477.7	516.7	531.8
57.5°	387.1	405.7	447.5	490.1	505.2
60°	353.4	373.8	420.0	462.6	479.4
62.5°	320.5	340.9	388.9	433.3	450.1
65°	285.0	309.0	358.7	404.0	420.0
67.5°	251.3	277.0	329.4	373.8	389.8
70°	218.4	243.3	299.2	342.7	358.7
72.5°	182.9	211.3	267.2	312.5	329.4
75°	147.4	181.1	236.2	280.6	296.5
77.5°	114.5	149.2	204.2	240.6	248.6
80°	84.3	119.9	167.8	193.6	203.3
82.5°	54.2	89.7	127.9	146.5	154.5
85°	30.2	59.5	83.5	94.1	97.7
87.5°	12.4	25.7	33.7	38.2	38.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)