

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: P310533

Luminaire Tested: **24FCZ2-30HE-UNV-L82765-CP250-W2A-U-5700K**

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: P310533
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: 24FCZ2-30HE-UNV-L82765-CP250-W2A-U-5700K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.250" POLYCARB SHEET
Light Source: (336) 5700K 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: 2716.0 lumens
Efficiency: N/A
Efficacy: 125.2 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

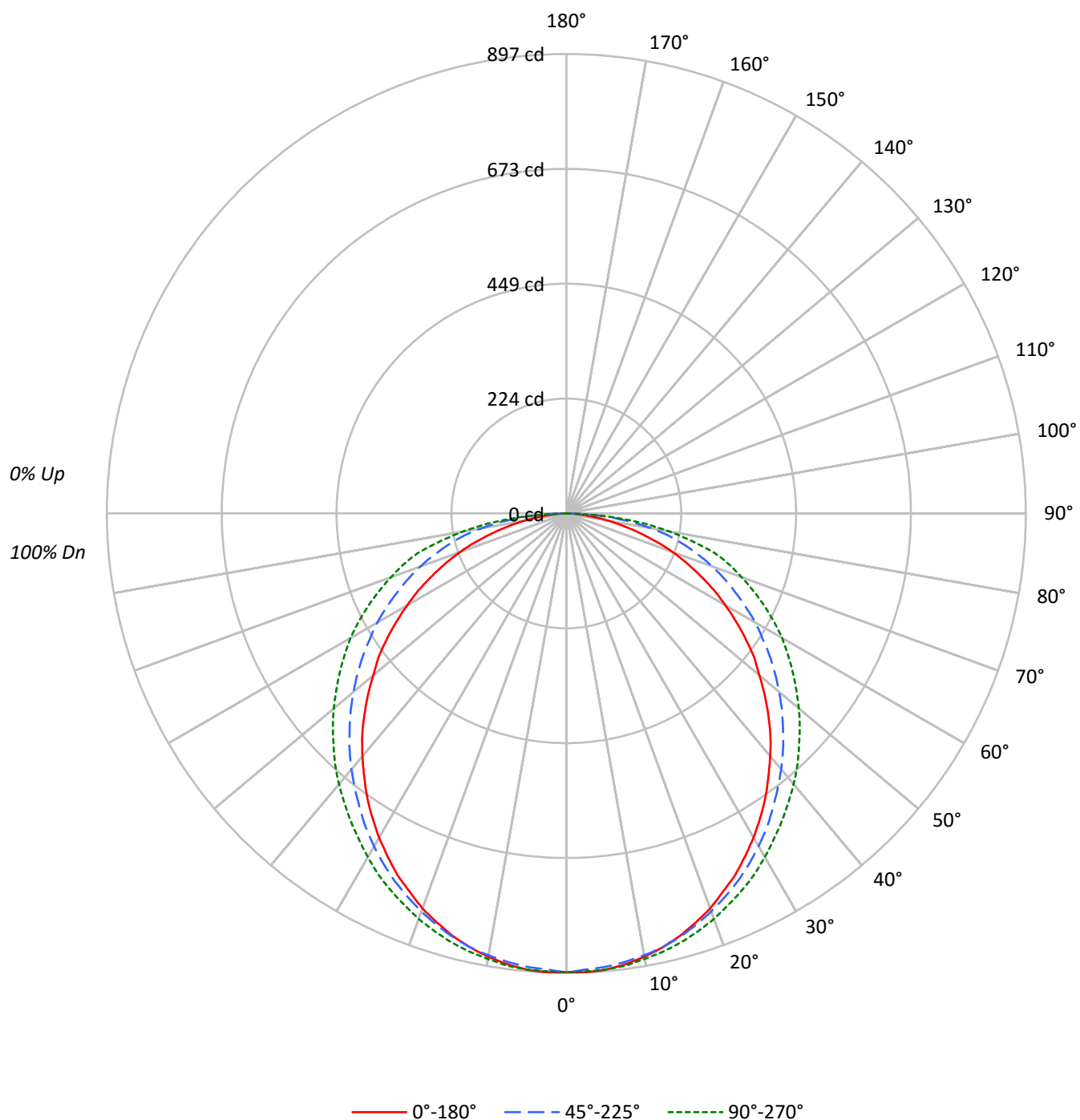
Input Watts (W): 21.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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	87	88	86	84	82		
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67		
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56		
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47		
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41		
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36		
7	64	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31		
8	59	45	37	31	57	45	36	30	43	36	30	42	35	30	41	34	30	28		
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25		
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1205	1205	1205
5°	1207	1200	1207
10°	1200	1197	1207
15°	1190	1193	1208
20°	1175	1184	1206
25°	1157	1176	1205
30°	1135	1166	1204
35°	1113	1155	1205
40°	1087	1146	1212
45°	1061	1138	1223
50°	1030	1136	1241
55°	1004	1137	1266
60°	965	1147	1309
65°	921	1159	1357
70°	872	1195	1432
75°	778	1246	1565
80°	663	1320	1599
85°	472	1308	1530



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.8	3.1
10°-20°	242.4	8.9
20°-30°	366.1	13.5
30°-40°	441.2	16.2
40°-50°	463.2	17.1
50°-60°	433.4	16.0
60°-70°	357.9	13.2
70°-80°	243.9	9.0
80°-90°	83.2	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°	693.3	25.5
0°-40°	1134.5	41.8
0°-60°	2031.1	74.8
0°-90°	2716.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2716.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	896	896	896	896	896	
5°	894	893	888	894	894	85
15°	854	855	856	865	867	241
25°	780	783	792	807	812	359
35°	678	685	703	726	734	423
45°	558	570	598	631	642	430
55°	428	445	485	524	540	382
65°	289	314	364	410	426	287
75°	150	184	240	285	301	159
85°	31	60	85	96	99	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	895.7	895.7	895.7	895.7	895.7
2.5°	896.6	895.7	891.2	895.7	894.8
5°	893.9	893.0	888.5	893.9	893.9
7.5°	887.6	887.6	883.1	889.4	890.3
10°	878.6	878.6	875.9	883.1	883.1
12.5°	867.8	867.8	867.8	875.0	875.9
15°	854.3	855.2	856.1	865.1	866.9
17.5°	838.0	839.8	842.5	853.4	855.2
20°	820.9	822.7	827.2	839.8	842.5
22.5°	799.3	803.8	810.1	824.5	827.2
25°	779.5	783.1	792.1	807.4	811.9
27.5°	755.1	760.5	772.3	788.5	794.8
30°	730.8	736.2	750.6	769.6	775.0
32.5°	704.7	712.8	728.1	747.9	754.2
35°	677.6	684.9	702.9	726.3	733.5
37.5°	647.9	657.8	677.6	702.9	711.9
40°	619.1	629.9	652.4	679.4	690.3
42.5°	590.2	601.0	626.3	656.9	667.7
45°	557.8	569.5	598.3	630.8	642.5
47.5°	525.4	539.8	571.3	605.6	618.2
50°	492.0	508.2	542.5	578.5	592.9
52.5°	462.3	477.6	513.6	552.4	565.9
55°	428.0	445.2	484.8	524.5	539.8
57.5°	392.9	411.8	454.2	497.4	512.7
60°	358.6	379.4	426.2	469.5	486.6
62.5°	325.3	346.0	394.7	439.7	456.9
65°	289.3	313.6	364.1	410.0	426.2
67.5°	255.0	281.1	334.3	379.4	395.6
70°	221.7	246.9	303.7	347.8	364.1
72.5°	185.6	214.5	271.2	317.2	334.3
75°	149.6	183.8	239.7	284.8	301.0
77.5°	116.2	151.4	207.3	244.2	252.3
80°	85.6	121.7	170.3	196.4	206.4
82.5°	55.0	91.0	129.8	148.7	156.8
85°	30.6	60.4	84.7	95.5	99.1
87.5°	12.6	26.1	34.2	38.7	38.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)