

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: P309601

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-HRP-CA125-W2A-U-3500K**

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: P309601
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-55HE-UNV-L82765-HRP-CA125-W2A-U-3500K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 3500K 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: 3746.0 lumens
Efficiency: N/A
Efficacy: 86.5 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

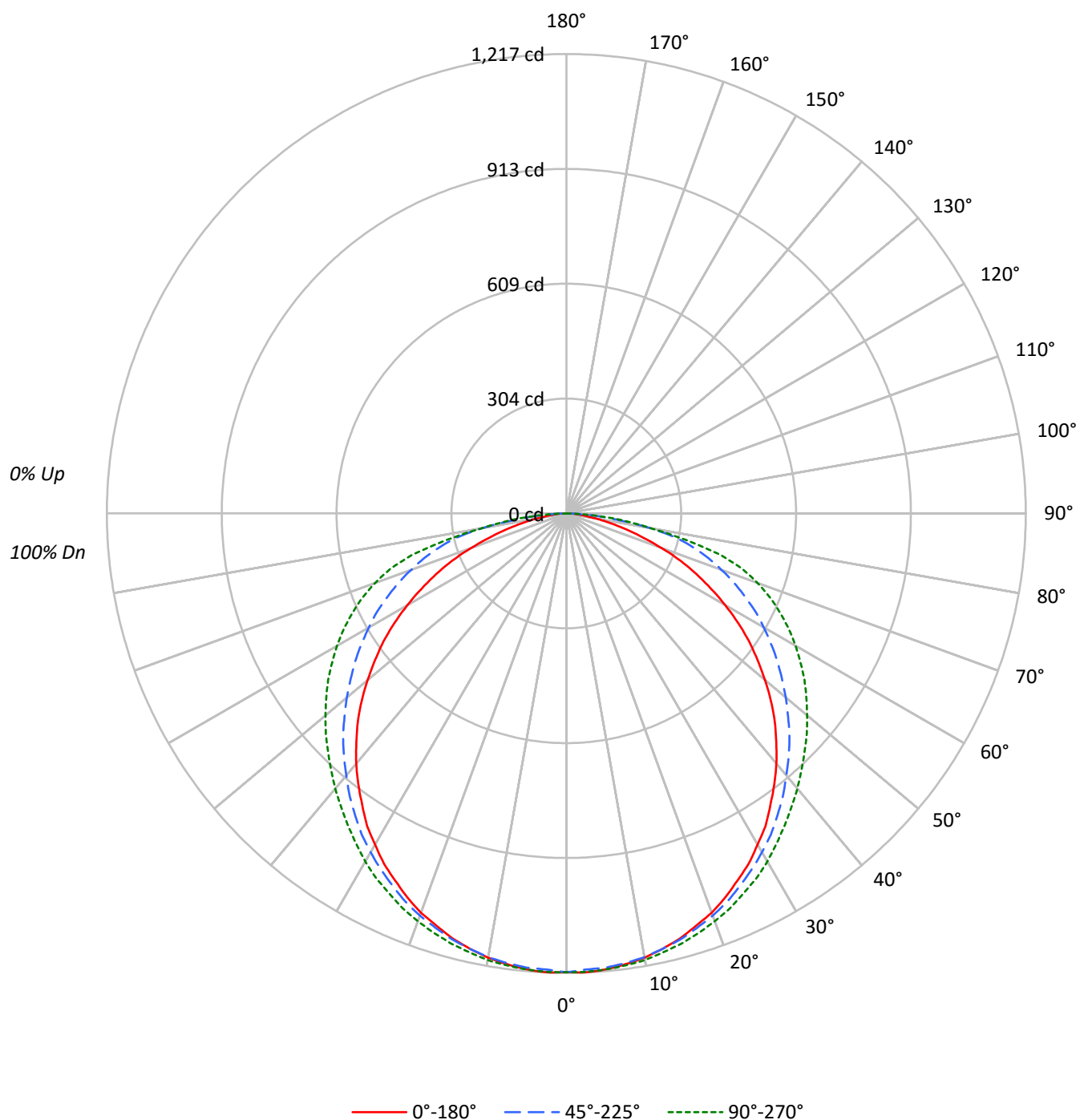
Input Watts (W): 43.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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		0
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		100
1	108	103	98	94	105	101	96	93	96	93	90		92	90	87		82
2	98	89	82	76	95	87	80	75	83	78	73		80	75	71		67
3	89	78	69	62	86	76	68	62	73	66	61		70	64	59		56
4	81	68	59	52	79	67	59	52	65	57	51		62	56	50		48
5	74	61	52	45	72	60	51	45	58	50	44		56	49	44		41
6	69	55	46	39	67	54	45	39	52	44	38		50	43	38		36
7	63	50	41	34	62	49	40	34	47	39	34		46	39	34		31
8	59	45	36	30	57	44	36	30	43	36	30		42	35	30		28
9	55	41	33	27	54	41	33	27	40	32	27		39	32	27		25
10	52	38	30	25	50	38	30	25	37	30	25		36	29	24		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1635	1635	1635
5°	1637	1631	1637
10°	1633	1630	1641
15°	1623	1627	1643
20°	1612	1623	1646
25°	1593	1616	1648
30°	1574	1611	1654
35°	1548	1602	1656
40°	1521	1592	1672
45°	1486	1591	1698
50°	1438	1589	1743
55°	1387	1600	1806
60°	1308	1625	1886
65°	1208	1663	1992
70°	1055	1721	2122
75°	856	1810	2193
80°	631	1774	1774
85°	485	1308	1477



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.1	3.1
10°-20°	330.6	8.8
20°-30°	503.3	13.4
30°-40°	611.2	16.3
40°-50°	645.7	17.2
50°-60°	609.3	16.3
60°-70°	506.6	13.5
70°-80°	333.3	8.9
80°-90°	90.9	2.4
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°	949.1	25.3
0°-40°	1560.3	41.7
0°-60°	2815.3	75.2
0°-90°	3746.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3746.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1215	1215	1215	1215	1215	
5°	1212	1212	1208	1212	1212	115
15°	1165	1167	1168	1179	1179	329
25°	1073	1079	1088	1107	1110	495
35°	942	954	976	1000	1008	590
45°	781	797	836	877	892	601
55°	591	616	682	746	770	527
65°	380	423	522	599	626	375
75°	165	240	348	412	422	177
85°	31	69	85	94	96	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1215.4	1215.4	1215.4	1215.4	1215.4
2.5°	1217.0	1215.4	1209.1	1215.4	1215.4
5°	1212.3	1212.3	1207.6	1212.3	1212.3
7.5°	1204.4	1204.4	1201.3	1207.6	1207.6
10°	1195.0	1195.0	1193.4	1201.3	1201.3
12.5°	1180.9	1182.5	1180.9	1190.3	1190.3
15°	1165.2	1166.8	1168.3	1179.3	1179.3
17.5°	1144.8	1148.0	1151.1	1163.6	1165.2
20°	1126.0	1127.6	1133.8	1148.0	1149.5
22.5°	1100.9	1105.6	1113.5	1127.6	1132.3
25°	1072.7	1079.0	1088.4	1107.2	1110.3
27.5°	1046.0	1050.7	1063.3	1083.7	1089.9
30°	1013.1	1020.9	1036.6	1057.0	1064.8
32.5°	981.7	989.6	1008.4	1030.3	1036.6
35°	942.5	953.5	975.5	1000.5	1008.4
37.5°	904.9	915.9	942.5	970.7	980.2
40°	865.7	878.2	906.4	939.4	951.9
42.5°	823.3	840.6	871.9	908.0	922.1
45°	781.0	796.7	835.9	876.7	892.3
47.5°	735.5	754.3	796.7	845.3	864.1
50°	686.9	710.4	759.0	812.4	832.7
52.5°	638.3	664.9	719.8	779.4	801.4
55°	591.2	616.3	682.2	746.5	770.0
57.5°	539.5	570.8	643.0	712.0	735.5
60°	486.2	520.7	603.8	675.9	701.0
62.5°	432.8	472.0	566.1	638.3	664.9
65°	379.5	423.4	522.2	599.1	625.7
67.5°	327.8	376.4	481.5	558.3	585.0
70°	268.2	329.3	437.5	512.8	539.5
72.5°	213.3	283.9	395.2	465.8	489.3
75°	164.7	239.9	348.2	412.4	421.9
77.5°	120.8	196.0	299.5	321.5	323.1
80°	81.5	156.8	229.0	225.8	229.0
82.5°	53.3	117.6	144.3	161.5	163.1
85°	31.4	69.0	84.7	94.1	95.7
87.5°	15.7	23.5	29.8	31.4	34.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)