

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: P307794

Luminaire Tested: **14FCZ2-20-UNV-L82765-S-CA08-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: P307794
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-20-UNV-L82765-S-CA08-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 4500K 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: 2062.0 lumens
Efficiency: N/A
Efficacy: 122.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

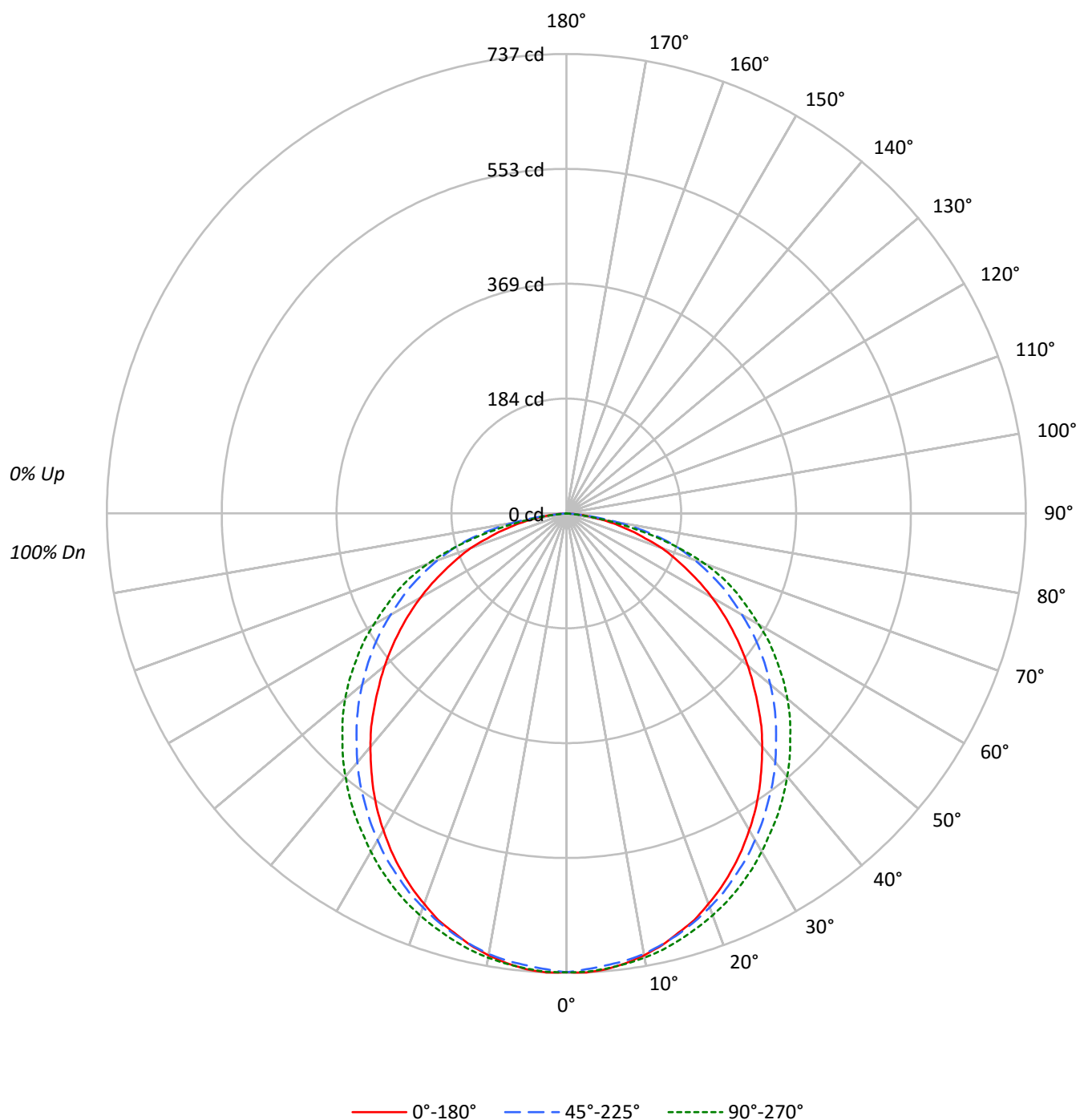
Input Watts (W): 16.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	100	96	106	102	98	94	97	94	91		94	91	89		84
2	99	90	84	78	96	89	82	77	85	80	75		82	77	73		70
3	90	79	71	65	87	78	70	64	75	68	63		72	66	62		58
4	82	70	61	55	80	69	61	54	66	59	53		64	58	53		50
5	76	63	54	47	74	62	53	47	59	52	46		57	51	46		43
6	70	56	47	41	68	55	47	41	54	46	40		52	45	40		38
7	65	51	42	36	63	50	42	36	49	41	36		47	41	35		33
8	60	47	38	32	59	46	38	32	45	37	32		43	37	32		30
9	56	43	35	29	55	42	34	29	41	34	29		40	33	29		27
10	53	40	32	26	52	39	31	26	38	31	26		37	31	26		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1981	1981	1981
5°	1983	1966	1980
10°	1967	1961	1978
15°	1940	1945	1971
20°	1909	1926	1964
25°	1870	1903	1958
30°	1823	1881	1947
35°	1773	1854	1941
40°	1717	1832	1936
45°	1654	1809	1934
50°	1592	1789	1939
55°	1525	1775	1933
60°	1453	1750	1920
65°	1367	1745	1920
70°	1287	1729	1866
75°	1116	1691	1595
80°	903	1362	1062
85°	599	472	315



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.5	3.4
10°-20°	197.8	9.6
20°-30°	296.7	14.4
30°-40°	353.9	17.2
40°-50°	365.9	17.7
50°-60°	334.1	16.2
60°-70°	262.9	12.7
70°-80°	153.0	7.4
80°-90°	28.2	1.4
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°	564.0	27.4
0°-40°	917.9	44.5
0°-60°	1617.9	78.5
0°-90°	2062.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2062.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	736	736	736	736	736	
5°	734	732	728	734	733	70
15°	696	697	698	708	708	196
25°	630	633	641	656	659	290
35°	540	547	564	586	591	337
45°	434	449	475	502	508	336
55°	325	342	378	406	412	291
65°	215	237	274	296	302	213
75°	107	133	163	160	153	114
85°	19	28	15	12	10	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	736.1	736.1	736.1	736.1	736.1
2.5°	737.1	735.1	732.0	737.1	736.1
5°	734.1	732.0	727.9	734.1	733.0
7.5°	727.9	725.9	723.8	730.0	728.9
10°	719.7	718.7	717.7	724.9	723.8
12.5°	709.5	709.5	708.5	716.7	716.7
15°	696.2	697.3	698.3	707.5	707.5
17.5°	684.0	682.9	686.0	696.2	697.3
20°	666.6	668.6	672.7	685.0	686.0
22.5°	649.2	651.2	658.4	670.7	673.7
25°	629.8	632.8	641.0	656.4	659.4
27.5°	609.3	613.4	624.7	641.0	644.1
30°	586.8	593.0	605.2	623.6	626.7
32.5°	564.3	570.5	585.8	604.2	608.3
35°	539.8	547.0	564.3	585.8	590.9
37.5°	514.2	523.4	543.9	565.4	571.5
40°	488.7	498.9	521.4	543.9	551.1
42.5°	463.1	473.4	497.9	523.4	530.6
45°	434.5	448.8	475.4	502.0	508.1
47.5°	406.9	422.2	451.9	478.5	486.6
50°	380.3	395.7	427.3	455.0	463.1
52.5°	352.7	369.1	402.8	431.4	438.6
55°	325.1	342.5	378.3	405.9	412.0
57.5°	297.5	315.9	352.7	379.3	386.5
60°	269.9	289.3	325.1	351.7	356.8
62.5°	242.3	262.7	299.6	323.1	328.2
65°	214.7	237.2	274.0	295.5	301.6
67.5°	188.1	210.6	246.4	266.8	271.9
70°	163.6	184.0	219.8	235.1	237.2
72.5°	132.9	158.5	193.2	201.4	196.3
75°	107.3	132.9	162.6	159.5	153.4
77.5°	81.8	107.3	126.8	116.5	108.4
80°	58.3	83.8	87.9	72.6	68.5
82.5°	37.8	58.3	49.1	37.8	30.7
85°	19.4	27.6	15.3	12.3	10.2
87.5°	6.1	4.1	2.0	2.0	1.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)