

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: METALUX

Report Number: P294845

Luminaire Tested: **22CZ2-32-HRP-UNV-L940-CD1-U**

Issue Date: 12/2/2019

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: P294845
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-22)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-32-HRP-UNV-L940-CD1-U
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY ROUND PERF. LENS
Light Source: (98) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

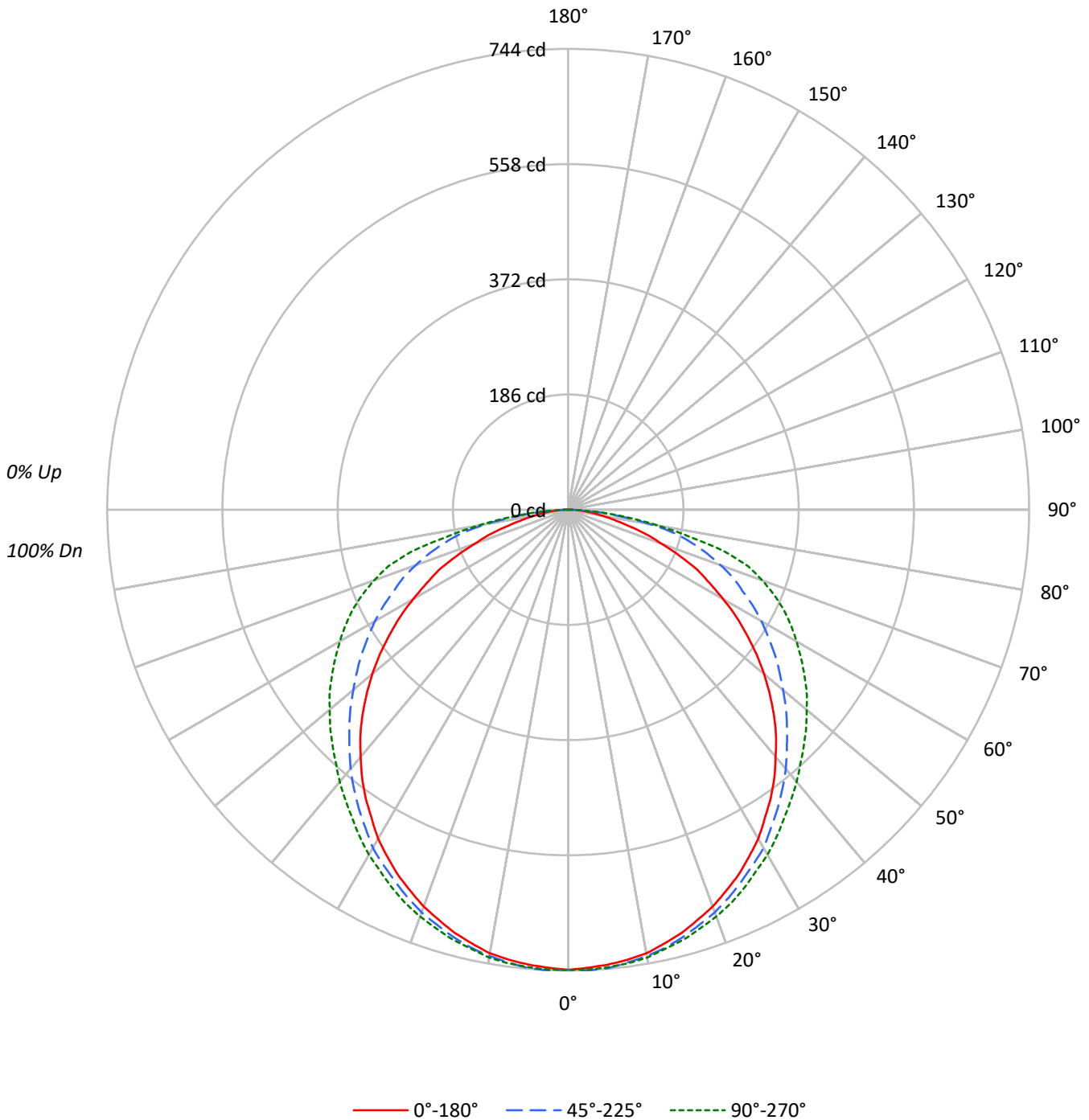
Lumens per Lamp: N/A
Luminaire Lumens: 2256.1 lumens
Efficiency: N/A
Efficacy: 84.5 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 26.7
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



TEST NUMBER: P294845
CATALOG NUMBER: 22CZ2-32-HRP-UNV-L940-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P294845

CATALOG NUMBER: 22CZ2-32-HRP-UNV-L940-CD1-U

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	101	96	93	96	93	90		92	90	87		89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73		80	75	71		77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61		70	64	60		68	63	59	56
4	81	69	59	52	79	67	59	52	65	57	51		62	56	51		60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44		56	49	44		54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39		50	43	38		49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34		46	39	34		44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30		42	35	30		41	35	30	28
9	55	42	33	28	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°	1999	1999	1999
5°	1991	2007	2003
10°	1987	1999	2006
15°	1970	1990	2002
20°	1952	1981	2001
25°	1931	1965	1999
30°	1906	1959	1999
35°	1870	1936	1996
40°	1830	1920	2015
45°	1787	1901	2047
50°	1728	1895	2103
55°	1649	1909	2183
60°	1555	1938	2290
65°	1468	1975	2447
70°	1254	2061	2620
75°	1050	2146	2723
80°	860	2073	2272
85°	747	1538	1670



TEST NUMBER: P294845

CATALOG NUMBER: 22CZ2-32-HRP-UNV-L940-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.4	3.1
10°-20°	201.4	8.9
20°-30°	305.2	13.5
30°-40°	368.6	16.3
40°-50°	387.3	17.2
50°-60°	364.4	16.2
60°-70°	303.8	13.5
70°-80°	201.3	8.9
80°-90°	53.7	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°	577.0	25.6
0°-40°	945.6	41.9
0°-60°	1697.3	75.2
0°-90°	2256.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2256.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	743	743	743	743	743	
5°	737	739	743	743	742	70
15°	707	710	714	717	719	199
25°	650	655	662	670	673	299
35°	569	575	589	602	608	356
45°	470	477	500	525	538	362
55°	352	367	407	448	465	314
65°	231	250	310	362	384	224
75°	101	141	206	249	262	110
85°	24	37	50	54	54	28
90°	0	0	0	0	0	



TEST NUMBER: P294845

CATALOG NUMBER: 22CZ2-32-HRP-UNV-L940-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	742.9	742.9	742.9	742.9	742.9
2.5°	740.0	741.5	744.3	744.3	742.9
5°	737.2	738.6	742.9	742.9	741.5
7.5°	732.9	734.3	737.2	740.0	738.6
10°	727.2	728.7	731.5	734.3	734.3
12.5°	717.3	718.7	724.4	725.8	725.8
15°	707.3	710.2	714.4	717.3	718.7
17.5°	694.5	697.3	703.0	708.7	708.7
20°	681.7	684.5	691.7	697.3	698.8
22.5°	666.0	670.3	677.4	684.5	687.4
25°	650.4	654.6	661.8	670.3	673.2
27.5°	631.9	636.1	646.1	656.1	657.5
30°	613.4	617.6	630.5	639.0	643.3
32.5°	590.6	596.3	609.1	621.9	626.2
35°	569.3	575.0	589.2	602.0	607.7
37.5°	546.5	552.2	567.8	583.5	590.6
40°	520.9	528.0	546.5	563.6	573.5
42.5°	496.7	503.8	522.3	545.1	555.0
45°	469.6	476.8	499.5	525.1	538.0
47.5°	441.2	449.7	476.8	508.1	520.9
50°	412.7	422.7	452.6	488.1	502.4
52.5°	382.8	395.6	429.8	468.2	485.3
55°	351.5	367.2	407.0	448.3	465.4
57.5°	321.6	335.9	382.8	426.9	445.4
60°	288.9	307.4	360.1	405.6	425.5
62.5°	257.6	277.5	335.9	384.3	405.6
65°	230.6	250.5	310.2	361.5	384.3
67.5°	195.0	222.0	288.9	337.3	360.1
70°	159.4	196.4	261.9	311.7	333.0
72.5°	132.4	167.9	234.8	284.6	304.6
75°	101.0	140.9	206.4	249.1	261.9
77.5°	75.4	116.7	176.5	197.8	199.2
80°	55.5	89.7	133.8	140.9	146.6
82.5°	38.4	62.6	86.8	95.4	98.2
85°	24.2	37.0	49.8	54.1	54.1
87.5°	12.8	14.2	17.1	17.1	17.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)