

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: P389619

Luminaire Tested: **24CZ2-150VHE-S-UNV-L940-CD2-SDWPD1-U**

Issue Date: 2/28/2020

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: P389619
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-150VHE-S-UNV-L940-CD2-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13141.4 lumens
Efficiency: N/A
Efficacy: 126.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

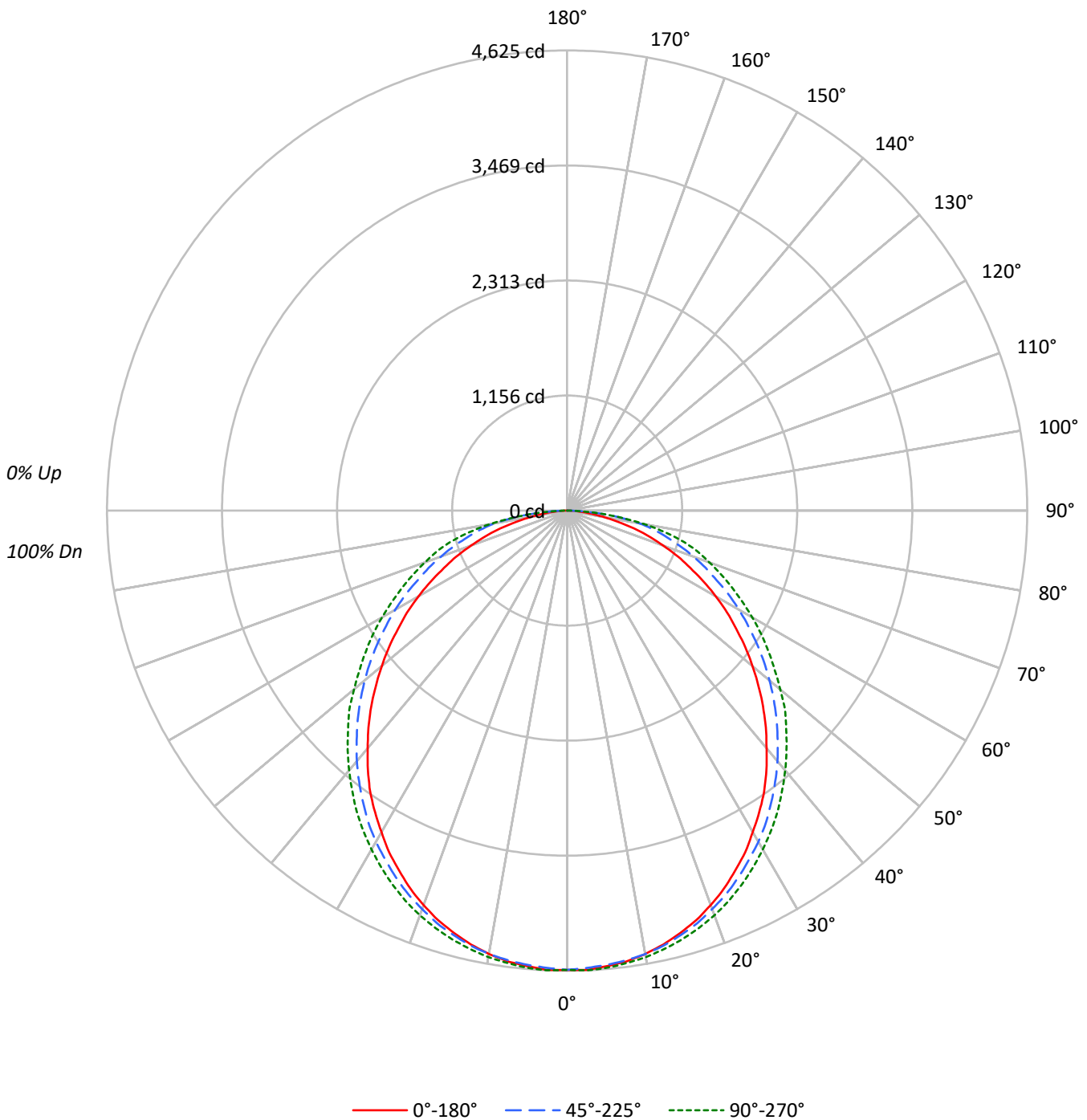
Input Watts (W): 104.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P389619

CATALOG NUMBER: 24CZ2-150VHE-S-UNV-L940-CD2-SDWPD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P389619

CATALOG NUMBER: 24CZ2-150VHE-S-UNV-L940-CD2-SDWPD1-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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6212	6212	6212
5°	6207	6190	6230
10°	6182	6182	6228
15°	6123	6152	6216
20°	6043	6102	6198
25°	5930	6042	6160
30°	5798	5973	6109
35°	5670	5876	6061
40°	5477	5777	5990
45°	5298	5663	5925
50°	5094	5557	5854
55°	4867	5454	5797
60°	4639	5369	5785
65°	4346	5276	5821
70°	4023	5304	5977
75°	3602	5403	6315
80°	2911	5724	6178
85°	2191	5027	4897



TEST NUMBER: P389619

CATALOG NUMBER: 24CZ2-150VHE-S-UNV-L940-CD2-SDWPD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	437.1	3.3
10°-20°	1248.8	9.5
20°-30°	1877.3	14.3
30°-40°	2236.2	17.0
40°-50°	2288.6	17.4
50°-60°	2060.4	15.7
60°-70°	1618.1	12.3
70°-80°	1050.2	8.0
80°-90°	324.8	2.5
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°	3563.2	27.1
0°-40°	5799.3	44.1
0°-60°	10148.4	77.2
0°-90°	13141.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13141.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4617	4617	4617	4617	4617	
5°	4596	4604	4583	4608	4612	437
15°	4395	4408	4416	4454	4462	1239
25°	3995	4028	4070	4137	4149	1840
35°	3452	3494	3577	3665	3690	2154
45°	2784	2851	2976	3089	3114	2147
55°	2075	2166	2325	2446	2471	1860
65°	1365	1469	1657	1795	1828	1359
75°	693	826	1039	1181	1215	733
85°	142	263	326	317	317	171
90°	0	0	0	0	0	



TEST NUMBER: P389619

CATALOG NUMBER: 24CZ2-150VHE-S-UNV-L940-CD2-SDWPD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4616.7	4616.7	4616.7	4616.7	4616.7
2.5°	4620.8	4620.8	4600.0	4620.8	4625.0
5°	4595.8	4604.1	4583.3	4608.3	4612.5
7.5°	4570.7	4570.7	4558.2	4583.3	4587.4
10°	4524.8	4529.0	4524.8	4554.0	4558.2
12.5°	4466.4	4474.7	4478.9	4508.1	4512.3
15°	4395.4	4407.9	4416.3	4453.9	4462.2
17.5°	4316.1	4328.6	4349.5	4391.3	4399.6
20°	4220.1	4236.8	4261.9	4316.1	4328.6
22.5°	4115.8	4132.5	4174.2	4224.3	4245.2
25°	3994.7	4028.1	4069.8	4136.6	4149.1
27.5°	3873.7	3902.9	3957.1	4028.1	4044.8
30°	3731.7	3777.6	3844.4	3915.4	3932.1
32.5°	3594.0	3639.9	3719.2	3794.3	3815.2
35°	3452.1	3493.8	3577.3	3664.9	3690.0
37.5°	3289.3	3343.5	3435.4	3523.0	3548.1
40°	3118.1	3184.9	3289.3	3381.1	3410.3
42.5°	2955.3	3026.3	3130.6	3230.8	3264.2
45°	2784.2	2851.0	2976.2	3088.9	3113.9
47.5°	2608.9	2684.0	2817.6	2930.3	2972.0
50°	2433.6	2512.9	2654.8	2771.7	2796.7
52.5°	2258.2	2341.7	2492.0	2617.2	2629.7
55°	2074.6	2166.4	2325.0	2446.1	2471.1
57.5°	1907.6	1986.9	2158.1	2283.3	2312.5
60°	1723.9	1811.6	1995.3	2112.1	2149.7
62.5°	1548.6	1640.5	1832.5	1949.3	1982.7
65°	1365.0	1469.3	1657.2	1794.9	1828.3
67.5°	1206.3	1306.5	1506.9	1640.5	1673.9
70°	1022.7	1135.4	1348.3	1486.0	1519.4
72.5°	864.1	980.9	1193.8	1327.4	1377.5
75°	692.9	826.5	1039.4	1181.3	1214.7
77.5°	525.9	680.4	897.5	1006.0	1006.0
80°	375.7	538.5	738.8	788.9	797.3
82.5°	246.3	404.9	546.8	542.6	542.6
85°	141.9	263.0	325.6	317.2	317.2
87.5°	54.3	108.5	116.9	116.9	112.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)