

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: P391445

Luminaire Tested: **24CZ2-50VHE-RDP-UNV-L940-CD1-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: P391445
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-50VHE-RDP-UNV-L940-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2909.4 lumens
Efficiency: N/A
Efficacy: 89.0 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

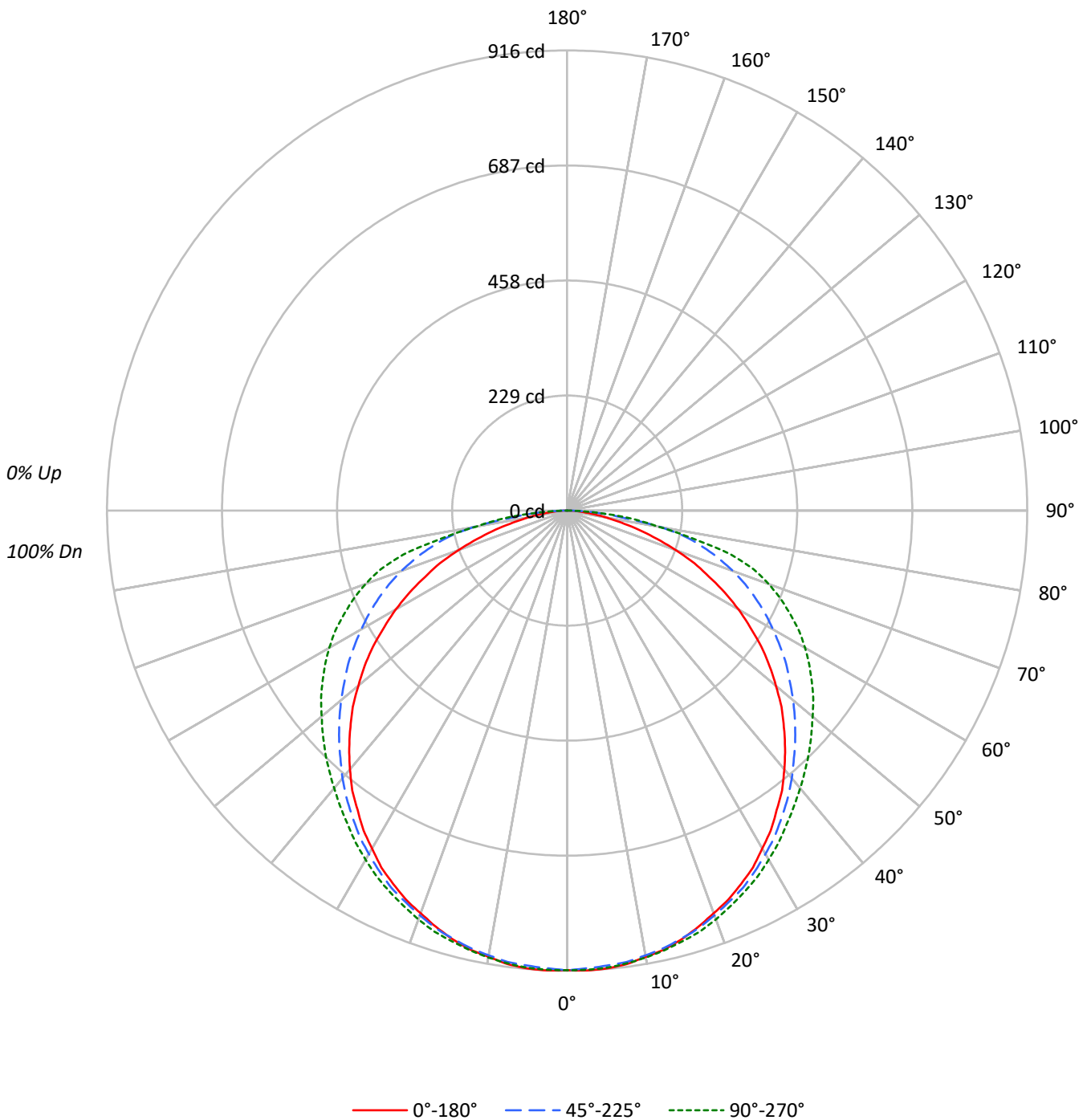
Input Watts (W): 32.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1231	1231	1231
5°	1236	1228	1234
10°	1232	1228	1234
15°	1230	1228	1236
20°	1221	1227	1240
25°	1217	1230	1243
30°	1206	1226	1247
35°	1195	1223	1252
40°	1181	1222	1267
45°	1161	1222	1296
50°	1136	1229	1335
55°	1107	1249	1395
60°	1060	1274	1472
65°	992	1319	1562
70°	903	1380	1681
75°	765	1456	1756
80°	604	1464	1420
85°	446	1115	1247



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.8	3.0
10°-20°	249.8	8.6
20°-30°	382.0	13.1
30°-40°	466.9	16.0
40°-50°	497.7	17.1
50°-60°	475.8	16.4
60°-70°	403.1	13.9
70°-80°	270.9	9.3
80°-90°	76.4	2.6
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°	718.5	24.7
0°-40°	1185.5	40.7
0°-60°	2159.0	74.2
0°-90°	2909.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2909.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	915	915	915	915	915	
5°	915	914	909	914	914	87
15°	883	883	882	889	888	249
25°	820	823	828	836	837	378
35°	727	733	745	759	762	456
45°	610	620	642	670	681	471
55°	472	489	532	574	595	420
65°	312	344	414	469	491	309
75°	147	201	280	328	338	158
85°	29	59	72	78	81	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	914.9	914.9	914.9	914.9	914.9
2.5°	916.4	916.4	912.0	914.9	914.9
5°	914.9	913.5	909.2	913.5	913.5
7.5°	910.6	909.2	906.3	910.6	909.2
10°	901.9	901.9	899.0	903.4	903.4
12.5°	894.7	893.3	891.8	897.6	896.2
15°	883.2	883.2	881.7	888.9	887.5
17.5°	868.7	870.2	871.6	877.4	878.8
20°	852.9	855.8	857.2	865.9	865.9
22.5°	838.4	839.9	842.8	851.4	851.4
25°	819.7	822.6	828.3	835.6	837.0
27.5°	800.9	802.4	809.6	819.7	821.1
30°	776.4	780.7	789.4	800.9	802.4
32.5°	754.7	759.1	769.2	780.7	783.6
35°	727.3	733.1	744.6	759.1	762.0
37.5°	702.8	707.1	721.5	737.4	741.8
40°	672.5	681.1	695.6	714.3	721.5
42.5°	642.2	650.8	668.2	692.7	701.3
45°	610.4	620.5	642.2	669.6	681.1
47.5°	578.7	590.2	614.8	646.5	659.5
50°	542.6	557.0	587.3	623.4	637.8
52.5°	508.0	525.3	558.5	598.9	617.6
55°	471.9	489.2	532.5	574.4	594.6
57.5°	431.5	454.6	502.2	549.8	571.5
60°	394.0	415.6	473.3	525.3	546.9
62.5°	353.6	382.4	444.5	499.3	521.0
65°	311.7	343.5	414.2	469.0	490.7
67.5°	274.2	308.8	383.9	438.7	460.3
70°	229.5	272.7	350.7	405.5	427.2
72.5°	187.6	235.2	316.0	369.4	389.6
75°	147.2	200.6	280.0	327.6	337.7
77.5°	109.7	166.0	242.4	262.6	255.4
80°	77.9	132.8	189.0	178.9	183.3
82.5°	50.5	101.0	116.9	132.8	137.1
85°	28.9	59.2	72.2	77.9	80.8
87.5°	13.0	21.6	28.9	28.9	27.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)