

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: P391317

Luminaire Tested: **24CZ2-40VHE-HRP-UNV-L930-CD1-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: P391317
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: 24CZ2-40VHE-HRP-UNV-L930-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2762.0 lumens
Efficiency: N/A
Efficacy: 105.4 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

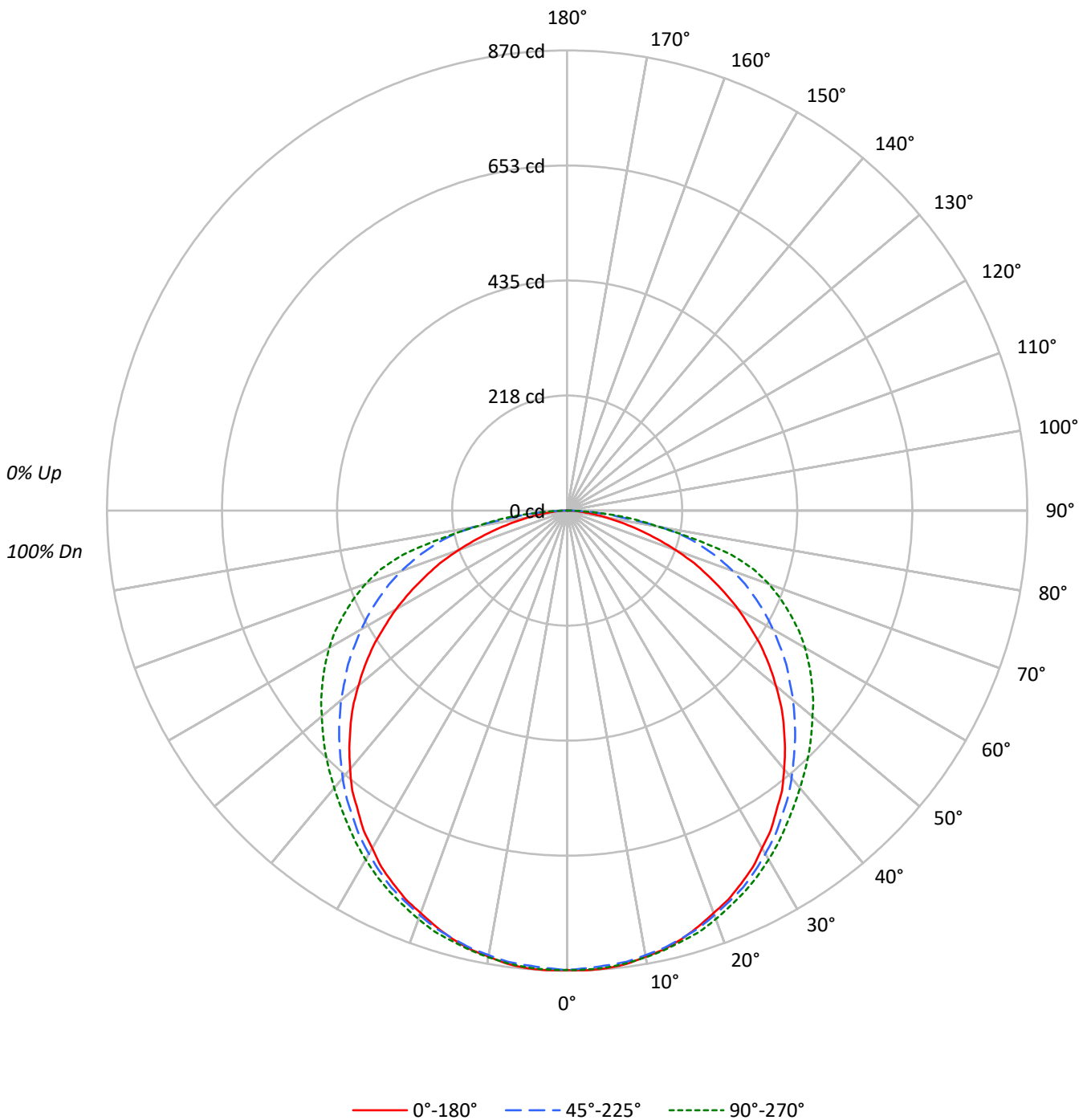
Input Watts (W): 26.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82					82			
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67					67			
3	88	77	68	62	86	76	68	61	72	66	60	70	64	59	67	62	58	56					56			
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47					47			
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40					40			
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35					35			
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31					31			
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27					27			
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24					24			
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22					22			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1169	1169	1169
5°	1173	1166	1171
10°	1170	1166	1172
15°	1168	1166	1174
20°	1159	1165	1177
25°	1155	1167	1180
30°	1145	1164	1183
35°	1134	1161	1188
40°	1121	1160	1203
45°	1103	1160	1230
50°	1078	1167	1267
55°	1051	1186	1324
60°	1006	1209	1397
65°	942	1252	1483
70°	857	1310	1595
75°	726	1382	1667
80°	573	1391	1348
85°	423	1057	1184



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.4	3.0
10°-20°	237.1	8.6
20°-30°	362.6	13.1
30°-40°	443.3	16.0
40°-50°	472.5	17.1
50°-60°	451.7	16.4
60°-70°	382.7	13.9
70°-80°	257.2	9.3
80°-90°	72.5	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°	682.1	24.7
0°-40°	1125.4	40.7
0°-60°	2049.6	74.2
0°-90°	2762.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2762.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	869	869	869	869	869	
5°	869	867	863	867	867	83
15°	838	838	837	844	842	236
25°	778	781	786	793	795	359
35°	690	696	707	721	723	433
45°	580	589	610	636	647	447
55°	448	464	506	545	564	399
65°	296	326	393	445	466	294
75°	140	190	266	311	321	150
85°	27	56	68	74	77	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	868.6	868.6	868.6	868.6	868.6
2.5°	869.9	869.9	865.8	868.6	868.6
5°	868.6	867.2	863.1	867.2	867.2
7.5°	864.5	863.1	860.4	864.5	863.1
10°	856.2	856.2	853.5	857.6	857.6
12.5°	849.4	848.0	846.7	852.1	850.8
15°	838.4	838.4	837.1	843.9	842.5
17.5°	824.7	826.1	827.5	833.0	834.3
20°	809.7	812.4	813.8	822.0	822.0
22.5°	796.0	797.3	800.1	808.3	808.3
25°	778.2	780.9	786.4	793.2	794.6
27.5°	760.3	761.7	768.6	778.2	779.5
30°	737.1	741.2	749.4	760.3	761.7
32.5°	716.5	720.6	730.2	741.2	743.9
35°	690.5	696.0	706.9	720.6	723.4
37.5°	667.2	671.3	685.0	700.1	704.2
40°	638.4	646.6	660.3	678.1	685.0
42.5°	609.6	617.9	634.3	657.6	665.8
45°	579.5	589.1	609.6	635.7	646.6
47.5°	549.4	560.3	583.6	613.8	626.1
50°	515.1	528.8	557.6	591.8	605.5
52.5°	482.2	498.7	530.2	568.5	586.4
55°	448.0	464.4	505.5	545.3	564.4
57.5°	409.6	431.5	476.8	522.0	542.5
60°	374.0	394.6	449.4	498.7	519.2
62.5°	335.6	363.0	422.0	474.0	494.6
65°	295.9	326.1	393.2	445.2	465.8
67.5°	260.3	293.2	364.4	416.5	437.0
70°	217.8	258.9	332.9	385.0	405.5
72.5°	178.1	223.3	300.0	350.7	369.9
75°	139.7	190.4	265.8	311.0	320.6
77.5°	104.1	157.5	230.2	249.3	242.5
80°	74.0	126.0	179.5	169.9	174.0
82.5°	47.9	95.9	111.0	126.0	130.1
85°	27.4	56.2	68.5	74.0	76.7
87.5°	12.3	20.5	27.4	27.4	26.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)