

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: P390981

Luminaire Tested: **24CZ2-120VHE-HRP-UNV-L930-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: P390981
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: 24CZ2-120VHE-HRP-UNV-L930-CD2-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: 8344.0 lumens
Efficiency: N/A
Efficacy: 99.8 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

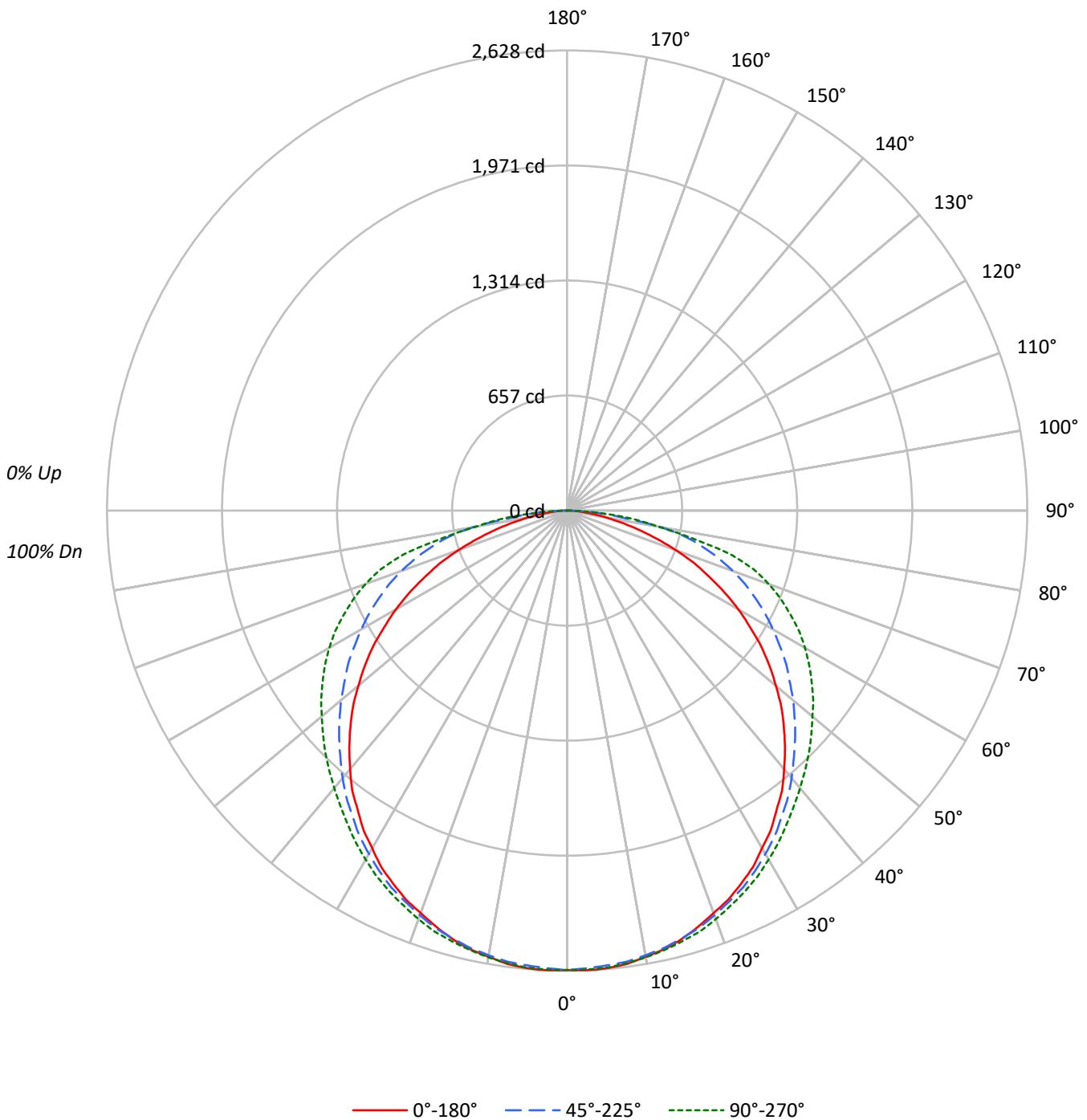
Input Watts (W): 83.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3530	3530	3530
5°	3544	3522	3538
10°	3534	3523	3540
15°	3528	3522	3545
20°	3502	3520	3556
25°	3490	3527	3564
30°	3459	3517	3575
35°	3426	3508	3589
40°	3387	3504	3635
45°	3331	3504	3717
50°	3257	3526	3829
55°	3175	3582	4000
60°	3041	3653	4221
65°	2846	3782	4480
70°	2589	3956	4819
75°	2194	4174	5035
80°	1732	4201	4073
85°	1278	3194	3578



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	248.9	3.0
10°-20°	716.3	8.6
20°-30°	1095.4	13.1
30°-40°	1339.2	16.0
40°-50°	1427.3	17.1
50°-60°	1364.7	16.4
60°-70°	1156.1	13.9
70°-80°	777.0	9.3
80°-90°	219.2	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°	2060.7	24.7
0°-40°	3399.9	40.7
0°-60°	6191.8	74.2
0°-90°	8344.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8344.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2624	2624	2624	2624	2624	
5°	2624	2620	2607	2620	2620	249
15°	2533	2533	2529	2550	2545	714
25°	2351	2359	2376	2396	2400	1083
35°	2086	2102	2136	2177	2185	1307
45°	1751	1780	1842	1920	1954	1350
55°	1353	1403	1527	1647	1705	1205
65°	894	985	1188	1345	1407	888
75°	422	575	803	940	968	452
85°	83	170	207	224	232	102
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2623.9	2623.9	2623.9	2623.9	2623.9
2.5°	2628.1	2628.1	2615.7	2623.9	2623.9
5°	2623.9	2619.8	2607.4	2619.8	2619.8
7.5°	2611.5	2607.4	2599.1	2611.5	2607.4
10°	2586.7	2586.7	2578.4	2590.8	2590.8
12.5°	2566.0	2561.9	2557.7	2574.3	2570.1
15°	2532.9	2532.9	2528.8	2549.5	2545.3
17.5°	2491.5	2495.6	2499.8	2516.3	2520.5
20°	2446.0	2454.3	2458.4	2483.2	2483.2
22.5°	2404.6	2408.7	2417.0	2441.8	2441.8
25°	2350.8	2359.1	2375.6	2396.3	2400.5
27.5°	2297.0	2301.1	2321.8	2350.8	2354.9
30°	2226.6	2239.0	2263.9	2297.0	2301.1
32.5°	2164.6	2177.0	2205.9	2239.0	2247.3
35°	2085.9	2102.5	2135.6	2177.0	2185.2
37.5°	2015.6	2028.0	2069.4	2114.9	2127.3
40°	1928.6	1953.5	1994.9	2048.7	2069.4
42.5°	1841.7	1866.6	1916.2	1986.6	2011.4
45°	1750.7	1779.7	1841.7	1920.4	1953.5
47.5°	1659.6	1692.7	1763.1	1854.1	1891.4
50°	1556.2	1597.5	1684.5	1787.9	1829.3
52.5°	1456.8	1506.5	1601.7	1717.6	1771.4
55°	1353.4	1403.0	1527.2	1647.2	1705.2
57.5°	1237.5	1303.7	1440.3	1576.9	1638.9
60°	1129.9	1192.0	1357.5	1506.5	1568.6
62.5°	1014.0	1096.8	1274.7	1432.0	1494.1
65°	894.0	985.0	1187.8	1345.1	1407.2
67.5°	786.4	885.7	1100.9	1258.2	1320.3
70°	658.1	782.2	1005.7	1163.0	1225.1
72.5°	538.0	674.6	906.4	1059.5	1117.5
75°	422.1	575.3	802.9	939.5	968.5
77.5°	314.5	476.0	695.3	753.2	732.6
80°	223.5	380.8	542.2	513.2	525.6
82.5°	144.9	289.7	335.2	380.8	393.2
85°	82.8	169.7	206.9	223.5	231.8
87.5°	37.2	62.1	82.8	82.8	78.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)