

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: P391158

Luminaire Tested: **24CZ2-170VHE-RDP-UNV-L950-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: P391158
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: 24CZ2-170VHE-RDP-UNV-L950-CD2-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10127.3 lumens
Efficiency: N/A
Efficacy: 82.1 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

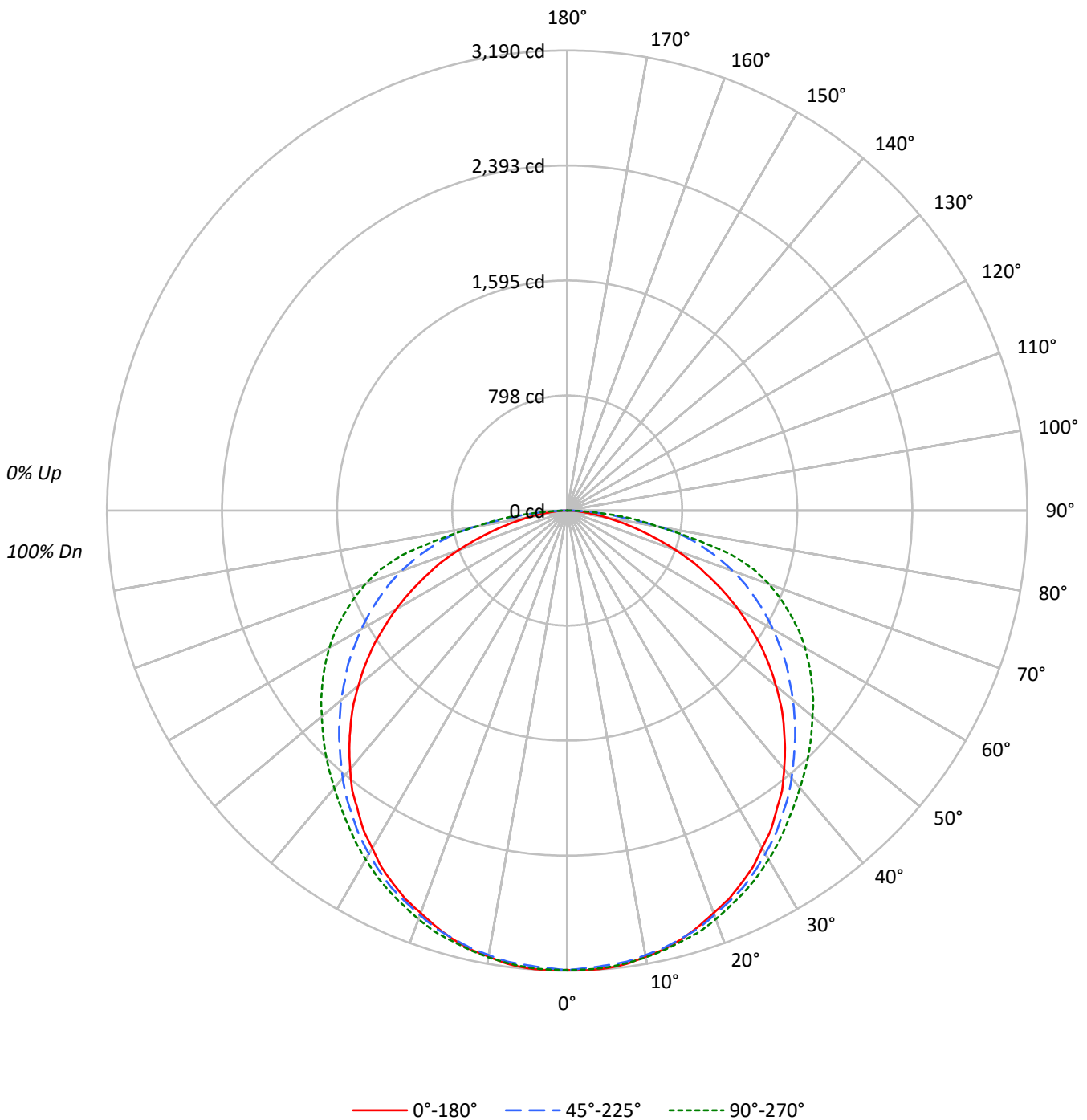
Input Watts (W): 123.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4285	4285	4285
5°	4301	4274	4295
10°	4289	4276	4296
15°	4282	4275	4303
20°	4251	4272	4316
25°	4236	4281	4325
30°	4199	4269	4339
35°	4158	4257	4357
40°	4111	4253	4411
45°	4043	4254	4512
50°	3953	4280	4648
55°	3853	4348	4855
60°	3690	4434	5123
65°	3454	4590	5437
70°	3142	4802	5849
75°	2664	5066	6110
80°	2102	5098	4943
85°	1551	3878	4343



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	302.1	3.0
10°-20°	869.4	8.6
20°-30°	1329.6	13.1
30°-40°	1625.4	16.0
40°-50°	1732.3	17.1
50°-60°	1656.3	16.4
60°-70°	1403.1	13.9
70°-80°	943.0	9.3
80°-90°	266.0	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°	2501.1	24.7
0°-40°	4126.5	40.7
0°-60°	7515.2	74.2
0°-90°	10127.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10127.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3185	3185	3185	3185	3185	
5°	3185	3180	3165	3180	3180	303
15°	3074	3074	3069	3094	3089	867
25°	2853	2863	2883	2908	2914	1315
35°	2532	2552	2592	2642	2652	1586
45°	2125	2160	2235	2331	2371	1639
55°	1643	1703	1854	1999	2070	1463
65°	1085	1196	1442	1633	1708	1077
75°	512	698	974	1140	1175	549
85°	100	206	251	271	281	124
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3184.7	3184.7	3184.7	3184.7	3184.7
2.5°	3189.8	3189.8	3174.7	3184.7	3184.7
5°	3184.7	3179.7	3164.7	3179.7	3179.7
7.5°	3169.7	3164.7	3154.6	3169.7	3164.7
10°	3139.5	3139.5	3129.5	3144.6	3144.6
12.5°	3114.4	3109.4	3104.4	3124.5	3119.4
15°	3074.2	3074.2	3069.2	3094.3	3089.3
17.5°	3024.0	3029.0	3034.0	3054.1	3059.2
20°	2968.7	2978.8	2983.8	3014.0	3014.0
22.5°	2918.5	2923.5	2933.6	2963.7	2963.7
25°	2853.2	2863.3	2883.4	2908.5	2913.5
27.5°	2787.9	2792.9	2818.0	2853.2	2858.2
30°	2702.5	2717.6	2747.7	2787.9	2792.9
32.5°	2627.2	2642.2	2677.4	2717.6	2727.6
35°	2531.7	2551.8	2592.0	2642.2	2652.3
37.5°	2446.3	2461.4	2511.6	2566.9	2582.0
40°	2340.8	2371.0	2421.2	2486.5	2511.6
42.5°	2235.4	2265.5	2325.8	2411.2	2441.3
45°	2124.8	2160.0	2235.4	2330.8	2371.0
47.5°	2014.3	2054.5	2139.9	2250.4	2295.6
50°	1888.7	1939.0	2044.5	2170.0	2220.3
52.5°	1768.2	1828.5	1944.0	2084.7	2150.0
55°	1642.6	1702.9	1853.6	1999.3	2069.6
57.5°	1502.0	1582.3	1748.1	1913.9	1989.2
60°	1371.3	1446.7	1647.6	1828.5	1903.8
62.5°	1230.7	1331.2	1547.2	1738.0	1813.4
65°	1085.0	1195.5	1441.7	1632.6	1707.9
67.5°	954.4	1075.0	1336.2	1527.1	1602.4
70°	798.7	949.4	1220.7	1411.5	1486.9
72.5°	653.0	818.8	1100.1	1286.0	1356.3
75°	512.4	698.2	974.5	1140.3	1175.4
77.5°	381.8	577.7	843.9	914.2	889.1
80°	271.3	462.1	658.0	622.9	638.0
82.5°	175.8	351.6	406.9	462.1	477.2
85°	100.5	206.0	251.2	271.3	281.3
87.5°	45.2	75.3	100.5	100.5	95.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)