

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: P388710

Luminaire Tested: **24CZ2-170VHE-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: P388710
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-170VHE-UNV-L950-CD2-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15057.7 lumens
Efficiency: N/A
Efficacy: 122.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

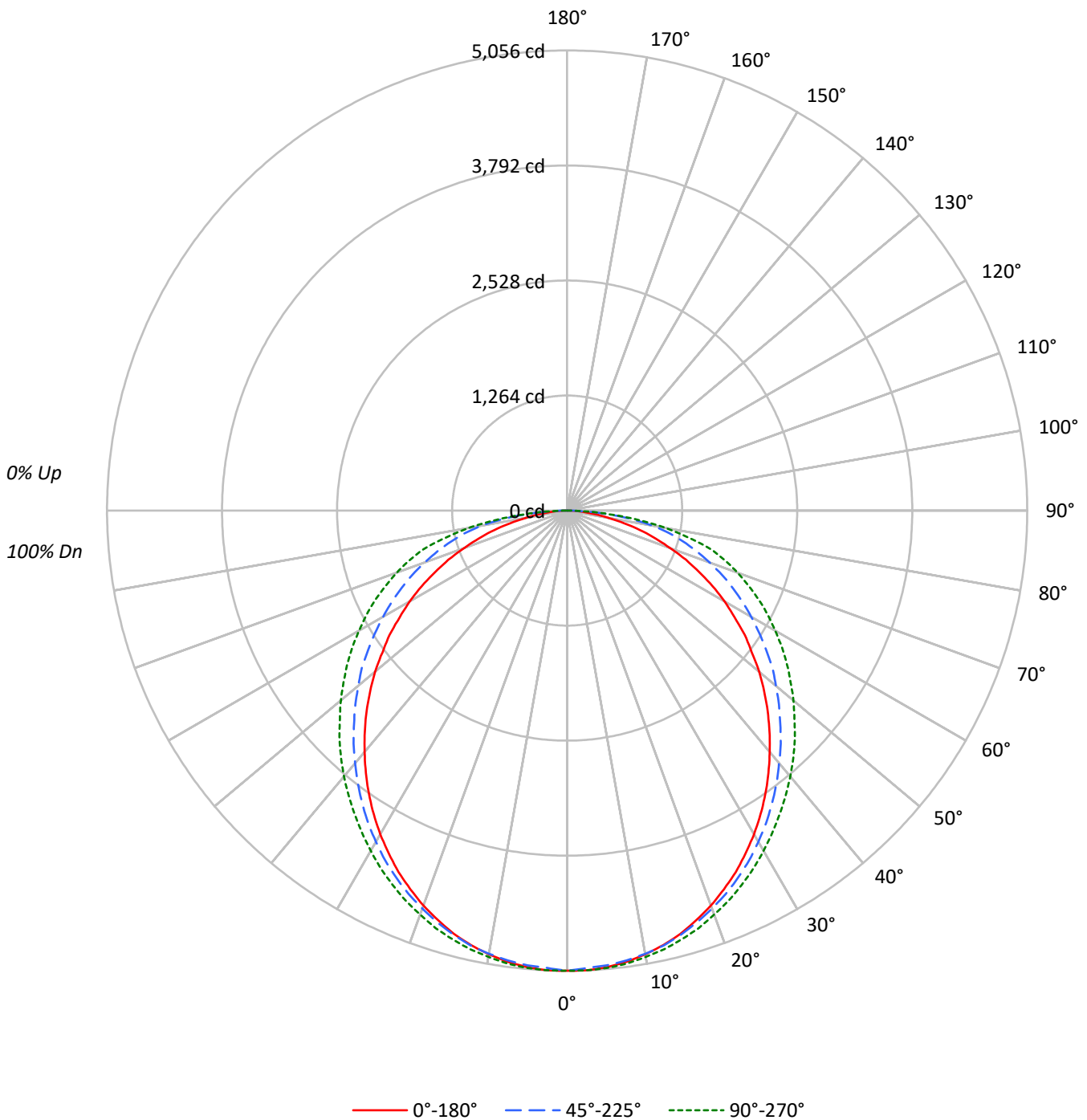
Input Watts (W): 123.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	89	86	84	82					82			
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67					67			
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56					56			
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48					48			
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41					41			
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36					36			
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32					32			
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28					28			
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25					25			
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23					23			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6802	6802	6802
5°	6801	6774	6815
10°	6763	6756	6804
15°	6706	6720	6790
20°	6613	6663	6764
25°	6506	6603	6737
30°	6379	6527	6707
35°	6240	6447	6686
40°	6082	6364	6699
45°	5929	6302	6732
50°	5764	6269	6795
55°	5588	6260	6920
60°	5369	6288	7100
65°	5088	6384	7408
70°	4725	6544	7829
75°	4311	6871	8491
80°	3543	7398	8488
85°	2716	6827	7293



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	478.1	3.2
10°-20°	1365.0	9.1
20°-30°	2054.2	13.6
30°-40°	2461.7	16.3
40°-50°	2565.3	17.0
50°-60°	2386.8	15.9
60°-70°	1965.8	13.1
70°-80°	1338.8	8.9
80°-90°	442.0	2.9
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°	3897.3	25.9
0°-40°	6359.0	42.2
0°-60°	11311.1	75.1
0°-90°	15057.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	15057.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5056	5056	5056	5056	5056	
5°	5036	5036	5015	5040	5046	478
15°	4814	4819	4824	4870	4875	1356
25°	4382	4402	4448	4523	4538	2017
35°	3799	3844	3925	4030	4071	2375
45°	3116	3181	3312	3478	3538	2403
55°	2382	2462	2668	2880	2950	2123
65°	1598	1734	2005	2241	2327	1586
75°	829	1015	1322	1558	1633	874
85°	176	342	442	472	472	218
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5055.6	5055.6	5055.6	5055.6	5055.6
2.5°	5055.6	5055.6	5030.4	5055.6	5055.6
5°	5035.5	5035.5	5015.4	5040.5	5045.5
7.5°	5000.3	5005.3	4985.2	5015.4	5020.4
10°	4950.0	4955.1	4945.0	4975.2	4980.2
12.5°	4889.7	4894.8	4894.8	4929.9	4935.0
15°	4814.4	4819.4	4824.4	4869.6	4874.7
17.5°	4718.9	4733.9	4744.0	4799.3	4809.3
20°	4618.4	4633.4	4653.5	4713.8	4723.9
22.5°	4502.8	4522.9	4558.1	4623.4	4638.5
25°	4382.2	4402.3	4447.5	4522.9	4538.0
27.5°	4246.5	4276.6	4331.9	4412.3	4432.4
30°	4105.8	4135.9	4201.2	4286.7	4316.8
32.5°	3955.0	3995.2	4070.6	4166.1	4196.2
35°	3799.2	3844.4	3924.9	4030.4	4070.6
37.5°	3633.4	3683.6	3779.1	3894.7	3945.0
40°	3462.5	3522.8	3623.3	3759.0	3814.3
42.5°	3291.6	3346.9	3472.6	3618.3	3678.6
45°	3115.8	3181.1	3311.8	3477.6	3537.9
47.5°	2934.8	3000.2	3156.0	3331.9	3387.1
50°	2753.9	2819.3	2995.1	3181.1	3246.4
52.5°	2557.9	2643.4	2844.4	3030.3	3095.7
55°	2382.0	2462.5	2668.5	2879.6	2949.9
57.5°	2181.0	2276.5	2502.7	2723.8	2799.2
60°	1995.1	2095.6	2336.8	2563.0	2638.3
62.5°	1804.1	1914.7	2171.0	2402.1	2487.6
65°	1598.1	1733.8	2005.1	2241.3	2326.8
67.5°	1412.1	1552.9	1839.3	2080.5	2155.9
70°	1201.1	1371.9	1663.4	1904.6	1990.1
72.5°	1020.2	1191.0	1497.6	1733.8	1819.2
75°	829.2	1015.1	1321.7	1557.9	1633.3
77.5°	638.2	844.3	1150.8	1331.7	1356.9
80°	457.3	673.4	954.8	1060.4	1095.5
82.5°	321.6	517.6	703.6	773.9	794.0
85°	175.9	341.7	442.2	472.4	472.4
87.5°	75.4	145.7	175.9	180.9	185.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)