

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: P389049

Luminaire Tested: **24CZ2-70HE-SQR-UNV-L950-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: P389049
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2002-678-2)
Test Lab: INNOVATION CENTER (G2)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-70HE-SQR-UNV-L950-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5962.5 lumens
Efficiency: N/A
Efficacy: 116.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

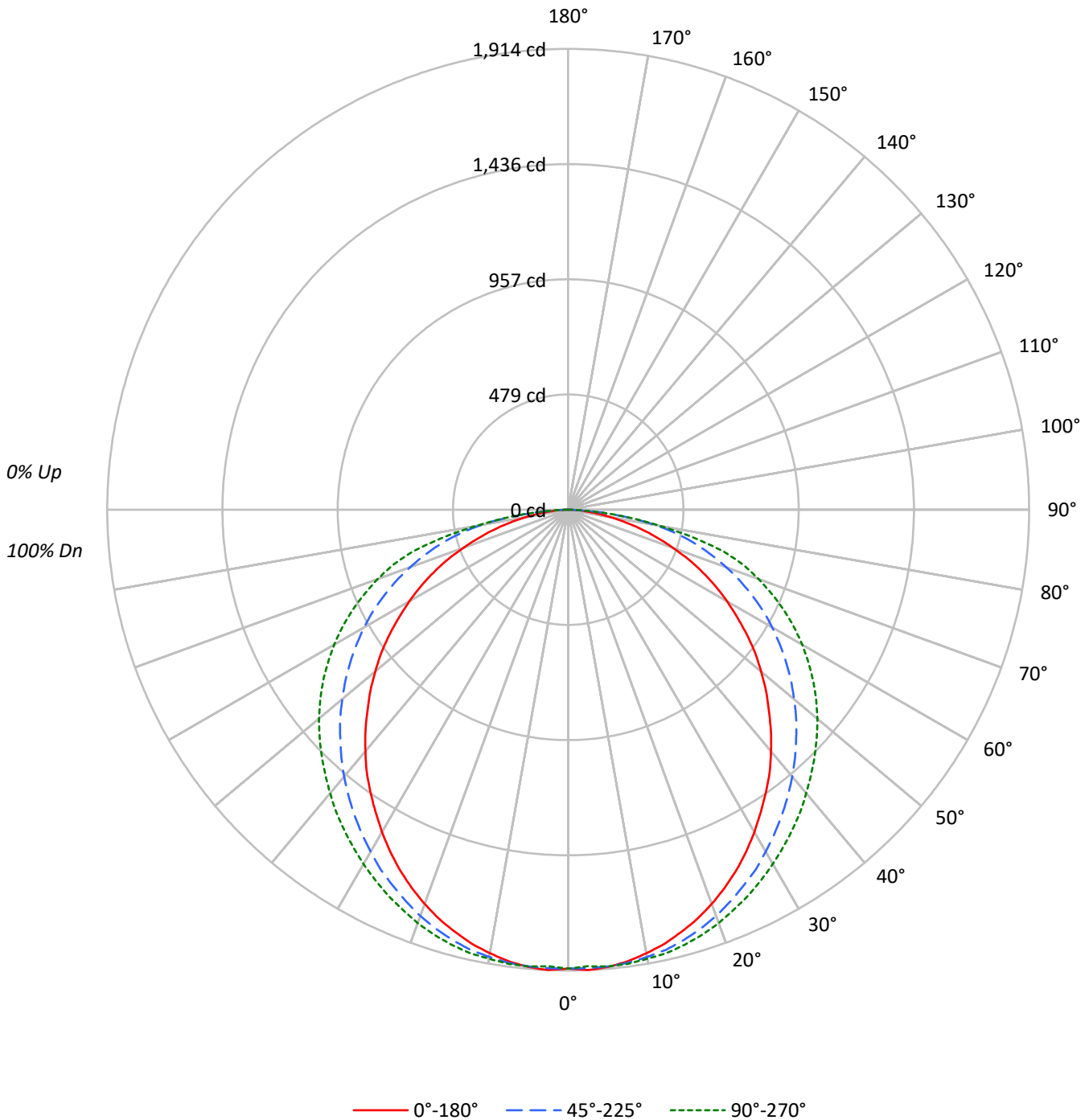
Input Watts (W): 51
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	89	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	60	54	49	47
5	74	61	51	44	72	60	51	44	57	50	44	55	49	43	54	48	43	41
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30	28
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2564	2564	2564
5°	2574	2571	2571
10°	2556	2577	2588
15°	2529	2578	2606
20°	2495	2571	2616
25°	2452	2558	2625
30°	2401	2548	2640
35°	2351	2542	2665
40°	2300	2542	2701
45°	2240	2548	2754
50°	2188	2564	2827
55°	2125	2591	2914
60°	2051	2633	3020
65°	1962	2683	3147
70°	1820	2750	3307
75°	1648	2846	3460
80°	1389	2853	2975
85°	1064	2158	2158



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	180.9	3.0
10°-20°	520.5	8.7
20°-30°	790.6	13.3
30°-40°	961.7	16.1
40°-50°	1023.9	17.2
50°-60°	975.2	16.4
60°-70°	815.5	13.7
70°-80°	543.7	9.1
80°-90°	150.5	2.5
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°	1492.0	25.0
0°-40°	2453.7	41.2
0°-60°	4452.8	74.7
0°-90°	5962.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5962.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1906	1906	1906	1906	1906	
5°	1906	1894	1904	1904	1904	181
15°	1815	1819	1851	1865	1870	512
25°	1652	1674	1723	1752	1768	761
35°	1431	1473	1548	1599	1622	896
45°	1177	1240	1339	1414	1447	910
55°	906	984	1105	1201	1242	810
65°	616	707	843	947	988	609
75°	317	417	547	640	666	336
85°	69	128	140	138	140	83
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1905.9	1905.9	1905.9	1905.9	1905.9
2.5°	1913.8	1900.0	1905.9	1905.9	1898.0
5°	1905.9	1894.1	1903.9	1903.9	1903.9
7.5°	1892.1	1882.3	1898.0	1902.0	1902.0
10°	1870.5	1866.5	1886.2	1892.1	1894.1
12.5°	1846.8	1844.9	1872.4	1880.3	1886.2
15°	1815.3	1819.3	1850.8	1864.6	1870.5
17.5°	1781.9	1789.7	1825.2	1844.9	1850.8
20°	1742.5	1754.3	1795.6	1815.3	1827.1
22.5°	1699.2	1716.9	1760.2	1783.8	1797.6
25°	1651.9	1673.6	1722.8	1752.3	1768.1
27.5°	1600.7	1628.3	1685.4	1718.9	1734.6
30°	1545.6	1577.1	1640.1	1679.5	1699.2
32.5°	1488.5	1525.9	1594.8	1638.1	1661.8
35°	1431.4	1472.7	1547.6	1598.8	1622.4
37.5°	1374.3	1415.6	1498.3	1553.5	1583.0
40°	1309.3	1358.5	1447.1	1508.2	1537.7
42.5°	1246.3	1299.5	1394.0	1460.9	1492.4
45°	1177.4	1240.4	1338.9	1413.7	1447.1
47.5°	1114.4	1177.4	1283.7	1362.5	1399.9
50°	1045.5	1112.4	1224.7	1311.3	1350.7
52.5°	978.5	1047.5	1165.6	1258.1	1297.5
55°	905.7	984.5	1104.6	1201.0	1242.4
57.5°	832.8	917.5	1041.6	1142.0	1183.3
60°	762.0	848.6	978.5	1079.0	1122.3
62.5°	691.1	777.7	913.6	1016.0	1057.3
65°	616.3	706.8	842.7	947.0	988.4
67.5°	541.5	636.0	771.8	876.2	915.5
70°	462.7	563.1	699.0	801.3	840.7
72.5°	389.8	490.3	624.1	724.6	762.0
75°	317.0	417.4	547.4	639.9	665.5
77.5°	246.1	346.5	462.7	523.7	529.6
80°	179.2	273.7	368.2	385.9	383.9
82.5°	120.1	204.8	254.0	256.0	261.9
85°	68.9	128.0	139.8	137.8	139.8
87.5°	27.6	45.3	39.4	29.5	29.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)