

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: P388516

Luminaire Tested: **22CZ2-85VHE-UNV-L940-CD1-SWPD1-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: P388516
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-27)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-85VHE-UNV-L940-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7267.9 lumens
Efficiency: N/A
Efficacy: 114.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

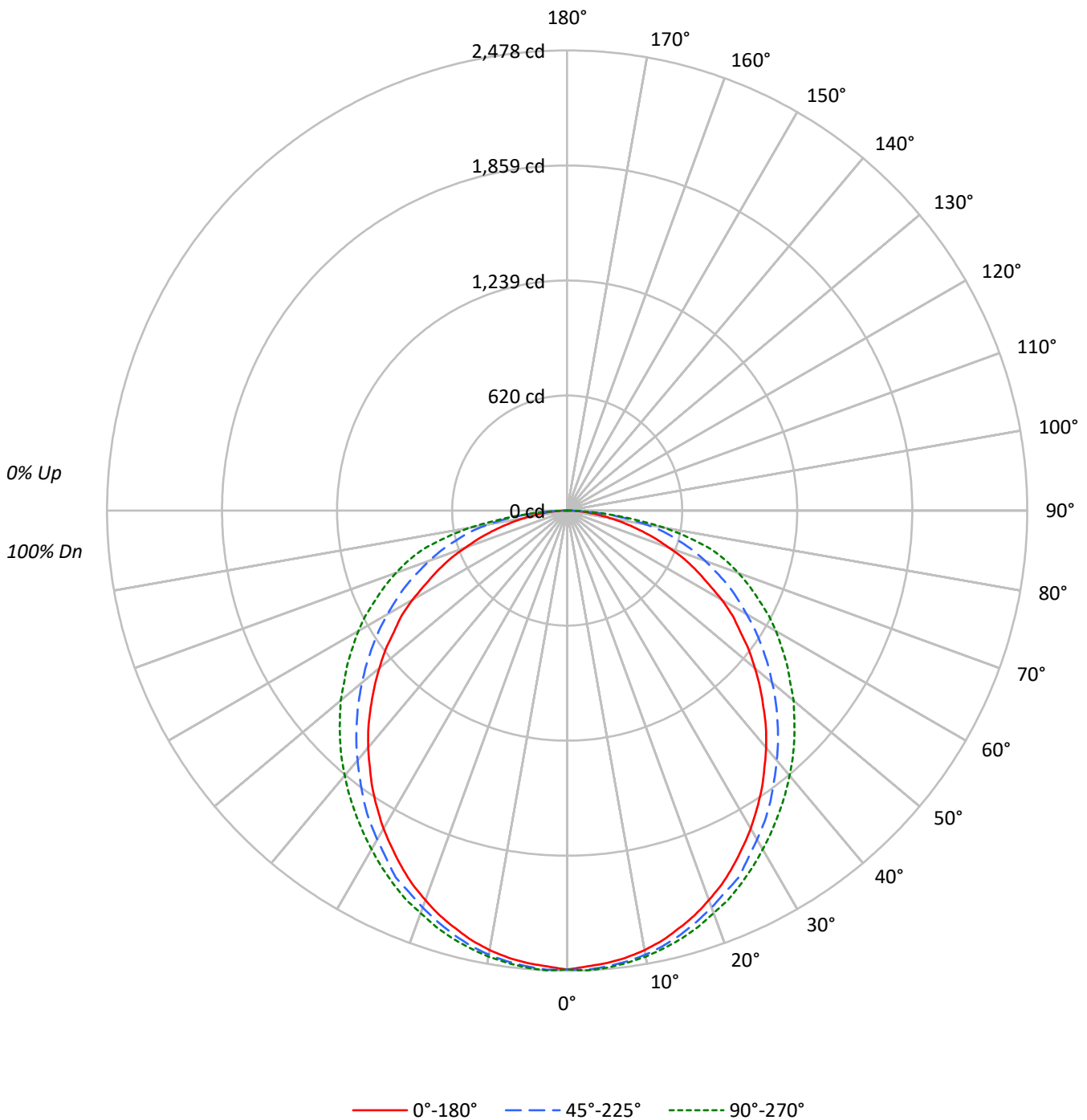
Input Watts (W): 63.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68
3	89	78	69	63	86	76	68	62	73	66	61	70	65	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	52	63	56	51	60	55	50	48
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	44	41
6	69	55	46	39	67	54	46	39	52	45	39	51	44	39	49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	34	46	39	34	45	39	34	32
8	59	46	37	31	58	45	37	31	44	36	31	42	35	30	41	35	30	28
9	56	42	34	28	54	41	33	28	40	33	28	39	32	27	38	32	27	25
10	52	39	31	25	51	38	30	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6650	6650	6650
5°	6608	6656	6675
10°	6567	6635	6665
15°	6486	6586	6646
20°	6391	6513	6606
25°	6276	6477	6584
30°	6145	6356	6545
35°	6003	6274	6532
40°	5854	6169	6545
45°	5689	6097	6587
50°	5525	6033	6663
55°	5336	6007	6778
60°	5177	6005	6987
65°	4919	6103	7242
70°	4586	6219	7710
75°	4201	6433	8329
80°	3657	6705	8202
85°	3202	5962	6515



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	233.7	3.2
10°-20°	665.7	9.2
20°-30°	999.3	13.7
30°-40°	1194.1	16.4
40°-50°	1241.7	17.1
50°-60°	1150.8	15.8
60°-70°	944.0	13.0
70°-80°	638.1	8.8
80°-90°	200.5	2.8
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°	1898.7	26.1
0°-40°	3092.8	42.6
0°-60°	5485.3	75.5
0°-90°	7267.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7267.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2471	2471	2471	2471	2471	
5°	2446	2450	2464	2468	2471	232
15°	2328	2339	2364	2378	2385	657
25°	2114	2132	2182	2207	2217	973
35°	1828	1852	1910	1967	1988	1142
45°	1495	1524	1602	1695	1731	1154
55°	1137	1173	1280	1395	1445	1022
65°	772	815	958	1084	1137	764
75°	404	472	619	744	801	429
85°	104	143	193	215	211	118
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2471.2	2471.2	2471.2	2471.2	2471.2
2.5°	2456.9	2464.1	2474.8	2478.4	2478.4
5°	2446.2	2449.8	2464.1	2467.6	2471.2
7.5°	2428.3	2435.5	2449.8	2453.3	2456.9
10°	2403.3	2410.4	2428.3	2435.5	2439.0
12.5°	2371.1	2378.2	2399.7	2410.4	2414.0
15°	2328.2	2338.9	2363.9	2378.2	2385.4
17.5°	2285.3	2296.0	2321.0	2342.5	2349.6
20°	2231.6	2256.6	2274.5	2303.1	2306.7
22.5°	2178.0	2192.3	2224.5	2253.1	2267.4
25°	2113.6	2131.5	2181.5	2206.6	2217.3
27.5°	2045.6	2070.7	2110.0	2149.4	2163.7
30°	1977.7	1995.6	2045.6	2092.1	2106.4
32.5°	1902.6	1927.6	1981.3	2027.8	2049.2
35°	1827.5	1852.5	1909.7	1967.0	1988.4
37.5°	1745.2	1773.8	1831.1	1899.0	1927.6
40°	1666.6	1688.0	1756.0	1838.2	1863.2
42.5°	1584.3	1609.3	1680.9	1770.3	1798.9
45°	1494.9	1523.5	1602.2	1695.2	1730.9
47.5°	1409.1	1437.7	1523.5	1616.5	1659.4
50°	1319.7	1355.4	1441.2	1548.5	1591.5
52.5°	1233.8	1266.0	1362.6	1473.4	1512.8
55°	1137.3	1173.0	1280.3	1394.8	1444.8
57.5°	1058.6	1083.6	1201.6	1319.7	1369.7
60°	962.0	994.2	1115.8	1241.0	1298.2
62.5°	858.3	912.0	1037.1	1165.9	1223.1
65°	772.5	815.4	958.4	1083.6	1137.3
67.5°	683.1	729.6	869.0	1001.4	1062.2
70°	582.9	643.7	790.4	922.7	979.9
72.5°	493.5	557.9	708.1	836.9	897.7
75°	404.1	472.1	618.7	743.9	801.1
77.5°	318.3	393.4	536.4	633.0	668.8
80°	236.0	307.6	432.7	500.7	529.3
82.5°	164.5	225.3	318.3	354.1	361.2
85°	103.7	143.1	193.1	214.6	211.0
87.5°	46.5	57.2	71.5	78.7	75.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)