

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: P388491

Luminaire Tested: **22CZ2-80VHE-UNV-L940-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: P388491
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: 22CZ2-80VHE-UNV-L940-CD1-SDWPD1-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: 6744.3 lumens
Efficiency: N/A
Efficacy: 114.1 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

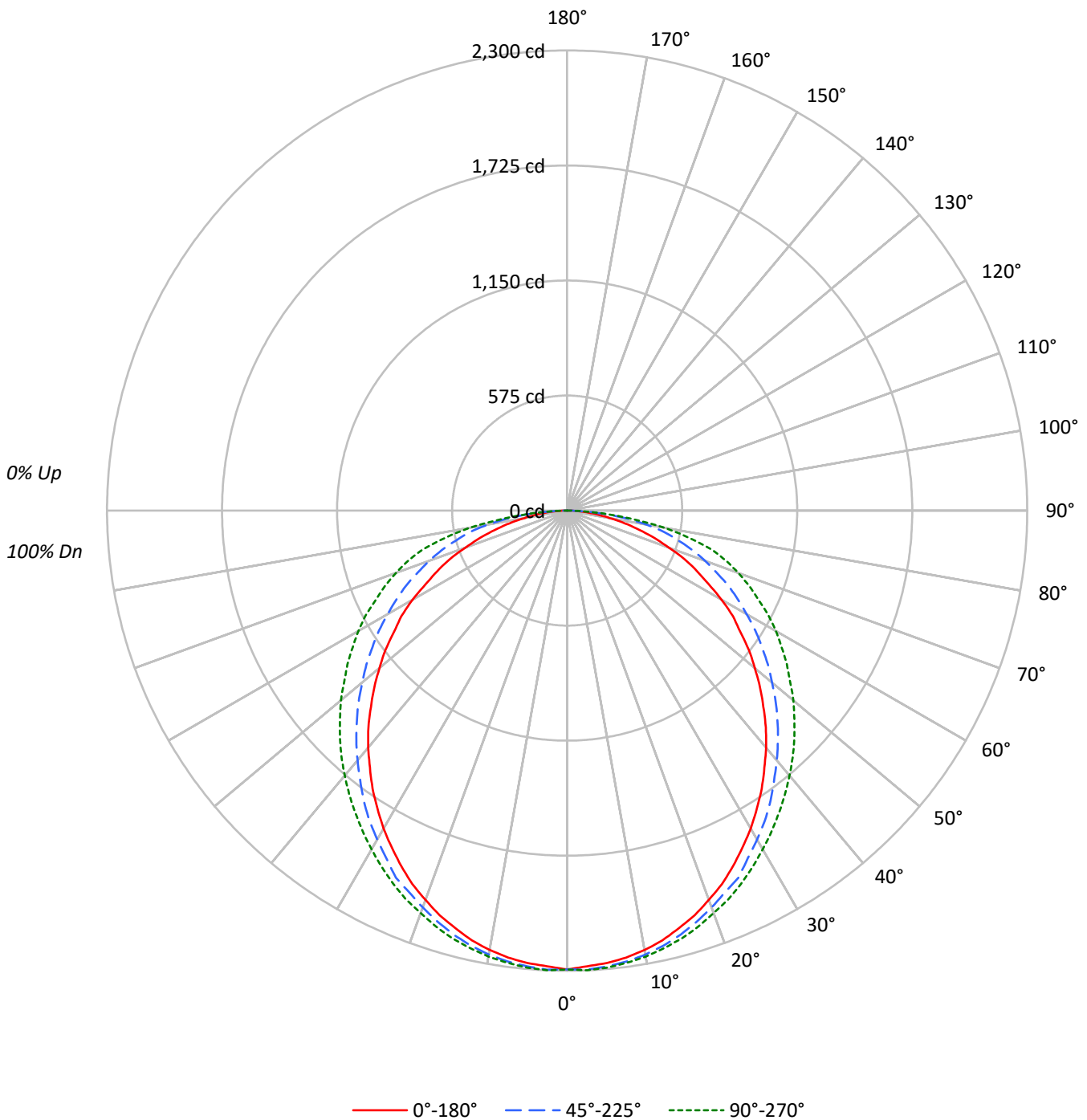
Input Watts (W): 59.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	6171	6171	6171
5°	6132	6176	6195
10°	6094	6157	6184
15°	6019	6111	6167
20°	5930	6044	6130
25°	5823	6011	6109
30°	5702	5899	6074
35°	5571	5822	6062
40°	5433	5724	6074
45°	5279	5658	6113
50°	5127	5599	6183
55°	4951	5574	6290
60°	4804	5572	6484
65°	4564	5663	6720
70°	4256	5770	7154
75°	3899	5969	7729
80°	3394	6223	7612
85°	2970	5533	6045



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	216.9	3.2
10°-20°	617.7	9.2
20°-30°	927.3	13.7
30°-40°	1108.1	16.4
40°-50°	1152.2	17.1
50°-60°	1067.9	15.8
60°-70°	876.0	13.0
70°-80°	592.2	8.8
80°-90°	186.1	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°	1761.9	26.1
0°-40°	2870.0	42.6
0°-60°	5090.1	75.5
0°-90°	6744.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6744.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2293	2293	2293	2293	2293	
5°	2270	2273	2286	2290	2293	215
15°	2160	2170	2194	2207	2214	609
25°	1961	1978	2024	2048	2058	903
35°	1696	1719	1772	1825	1845	1060
45°	1387	1414	1487	1573	1606	1071
55°	1055	1088	1188	1294	1341	948
65°	717	757	889	1006	1055	709
75°	375	438	574	690	743	398
85°	96	133	179	199	196	109
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2293.2	2293.2	2293.2	2293.2	2293.2
2.5°	2279.9	2286.5	2296.5	2299.8	2299.8
5°	2270.0	2273.3	2286.5	2289.9	2293.2
7.5°	2253.4	2260.0	2273.3	2276.6	2279.9
10°	2230.1	2236.8	2253.4	2260.0	2263.3
12.5°	2200.3	2206.9	2226.8	2236.8	2240.1
15°	2160.4	2170.4	2193.6	2206.9	2213.5
17.5°	2120.6	2130.6	2153.8	2173.7	2180.4
20°	2070.8	2094.1	2110.7	2137.2	2140.5
22.5°	2021.1	2034.3	2064.2	2090.7	2104.0
25°	1961.3	1977.9	2024.4	2047.6	2057.6
27.5°	1898.3	1921.5	1958.0	1994.5	2007.8
30°	1835.2	1851.8	1898.3	1941.4	1954.7
32.5°	1765.5	1788.8	1838.5	1881.7	1901.6
35°	1695.8	1719.1	1772.2	1825.3	1845.2
37.5°	1619.5	1646.0	1699.1	1762.2	1788.8
40°	1546.5	1566.4	1629.5	1705.8	1729.0
42.5°	1470.2	1493.4	1559.8	1642.7	1669.3
45°	1387.2	1413.7	1486.8	1573.0	1606.2
47.5°	1307.5	1334.1	1413.7	1500.0	1539.9
50°	1224.6	1257.8	1337.4	1437.0	1476.8
52.5°	1144.9	1174.8	1264.4	1367.3	1403.8
55°	1055.3	1088.5	1188.1	1294.3	1340.7
57.5°	982.3	1005.6	1115.1	1224.6	1271.0
60°	892.7	922.6	1035.4	1151.6	1204.7
62.5°	796.5	846.3	962.4	1081.9	1135.0
65°	716.8	756.7	889.4	1005.6	1055.3
67.5°	633.9	677.0	806.4	929.2	985.6
70°	540.9	597.4	733.4	856.2	909.3
72.5°	458.0	517.7	657.1	776.6	833.0
75°	375.0	438.1	574.1	690.3	743.4
77.5°	295.4	365.1	497.8	587.4	620.6
80°	219.0	285.4	401.6	464.6	491.2
82.5°	152.7	209.1	295.4	328.5	335.2
85°	96.2	132.7	179.2	199.1	195.8
87.5°	43.1	53.1	66.4	73.0	69.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)