

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: P389333

Luminaire Tested: **22CZ2-60VHE-S-UNV-L940-CD1-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: P389333
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-60VHE-S-UNV-L940-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5484.1 lumens
Efficiency: N/A
Efficacy: 124.4 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

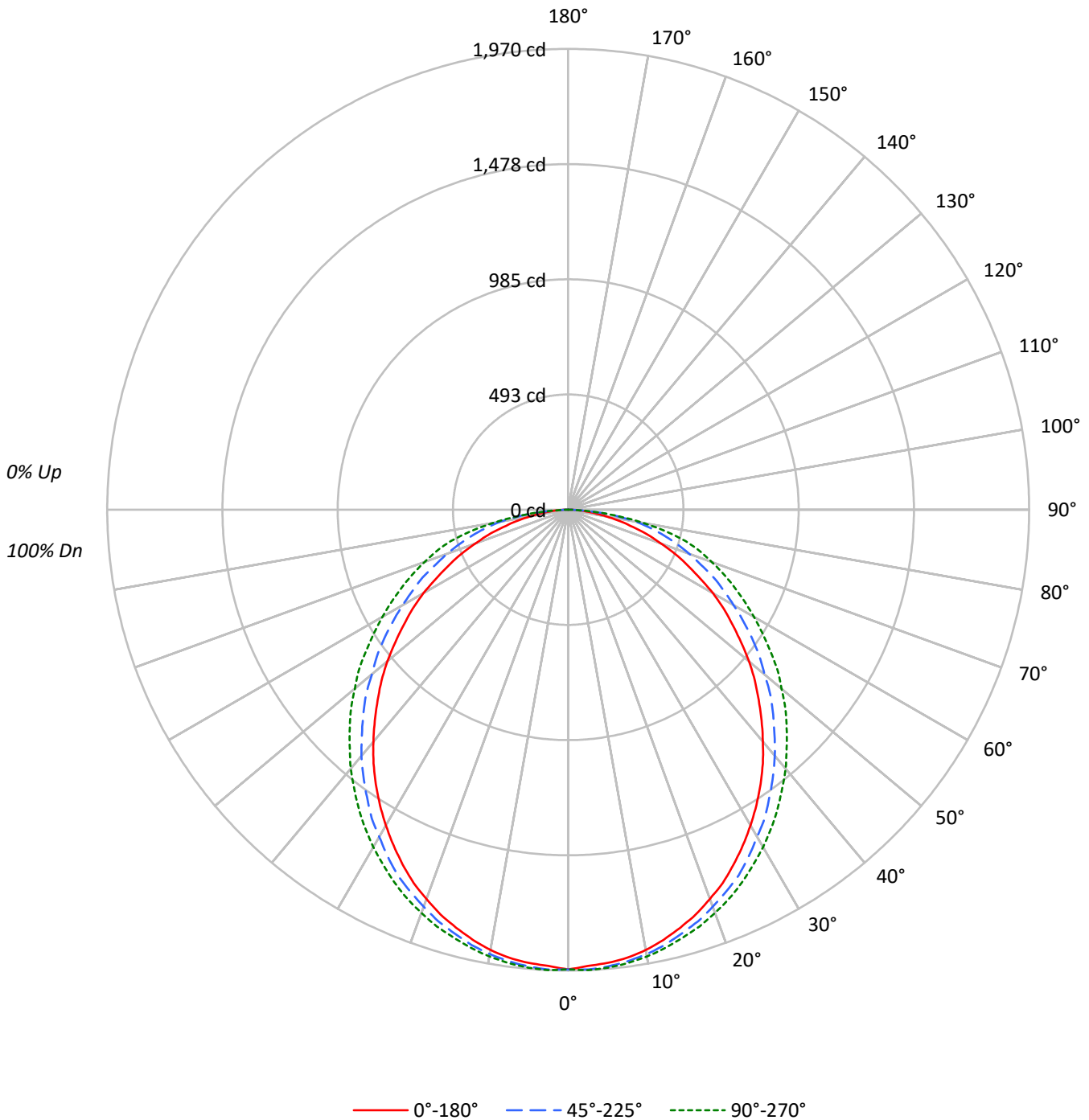
Input Watts (W): 44.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	94	97	94	91		93	90	88		89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74		81	77	73		78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62		72	66	61		69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53		64	57	52		61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46		57	51	45		55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40		52	45	40		50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36		47	40	35		46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32		43	37	32		42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29		40	33	29		39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26		37	31	26		36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5288	5288	5288
5°	5253	5294	5308
10°	5223	5272	5300
15°	5154	5225	5275
20°	5071	5173	5254
25°	4969	5121	5219
30°	4842	5017	5176
35°	4707	4926	5127
40°	4548	4827	5078
45°	4382	4713	5025
50°	4220	4585	4981
55°	4022	4502	4946
60°	3842	4393	4930
65°	3584	4366	4986
70°	3301	4328	5134
75°	2980	4390	5400
80°	2577	4520	5075
85°	2133	3792	3792



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	185.8	3.4
10°-20°	528.9	9.6
20°-30°	791.3	14.4
30°-40°	937.1	17.1
40°-50°	955.0	17.4
50°-60°	856.0	15.6
60°-70°	670.2	12.2
70°-80°	432.1	7.9
80°-90°	127.7	2.3
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°	1506.0	27.5
0°-40°	2443.1	44.5
0°-60°	4254.1	77.6
0°-90°	5484.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5484.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1965	1965	1965	1965	1965	
5°	1945	1950	1960	1963	1965	185
15°	1850	1860	1876	1891	1894	522
25°	1673	1689	1725	1748	1758	770
35°	1433	1451	1499	1546	1561	896
45°	1151	1177	1238	1302	1320	889
55°	857	885	960	1026	1054	769
65°	563	596	686	752	783	559
75°	287	330	422	494	519	307
85°	69	95	123	123	123	81
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1965.1	1965.1	1965.1	1965.1	1965.1
2.5°	1952.3	1957.4	1967.7	1970.2	1970.2
5°	1944.7	1949.8	1960.0	1962.6	1965.1
7.5°	1931.9	1934.4	1947.2	1952.3	1954.9
10°	1911.4	1916.5	1929.3	1937.0	1939.5
12.5°	1883.2	1890.9	1906.3	1916.5	1919.1
15°	1850.0	1860.2	1875.6	1890.9	1893.5
17.5°	1814.2	1824.4	1844.9	1862.8	1867.9
20°	1770.7	1783.5	1806.5	1827.0	1834.6
22.5°	1727.2	1737.4	1765.5	1791.1	1798.8
25°	1673.4	1688.8	1724.6	1747.6	1757.9
27.5°	1617.1	1635.0	1670.9	1701.6	1711.8
30°	1558.3	1576.2	1614.6	1653.0	1665.7
32.5°	1496.9	1517.3	1563.4	1601.8	1614.6
35°	1432.9	1450.8	1499.4	1545.5	1560.8
37.5°	1366.4	1381.7	1438.0	1486.6	1502.0
40°	1294.7	1315.2	1374.1	1430.3	1445.7
42.5°	1223.1	1246.1	1305.0	1366.4	1381.7
45°	1151.4	1177.0	1238.4	1302.4	1320.3
47.5°	1082.4	1102.8	1171.9	1233.3	1258.9
50°	1008.1	1028.6	1095.1	1164.2	1189.8
52.5°	931.4	959.5	1031.2	1097.7	1128.4
55°	857.2	885.3	959.5	1026.1	1054.2
57.5°	788.1	811.1	887.9	957.0	985.1
60°	713.9	734.4	816.2	890.4	916.0
62.5°	634.6	665.3	749.7	818.8	849.5
65°	562.9	596.2	685.7	752.3	783.0
67.5°	496.4	527.1	614.1	685.7	719.0
70°	419.6	460.6	550.1	621.8	652.5
72.5°	358.2	394.0	486.2	557.8	591.1
75°	286.6	330.1	422.2	493.8	519.4
77.5°	227.7	271.2	358.2	414.5	427.3
80°	166.3	209.8	291.7	319.8	327.5
82.5°	112.6	153.5	209.8	217.5	220.1
85°	69.1	94.7	122.8	122.8	122.8
87.5°	33.3	38.4	43.5	40.9	40.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)