

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: P388301

Luminaire Tested: **22CZ2-39VHE-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: P388301
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: 22CZ2-39VHE-UNV-L940-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

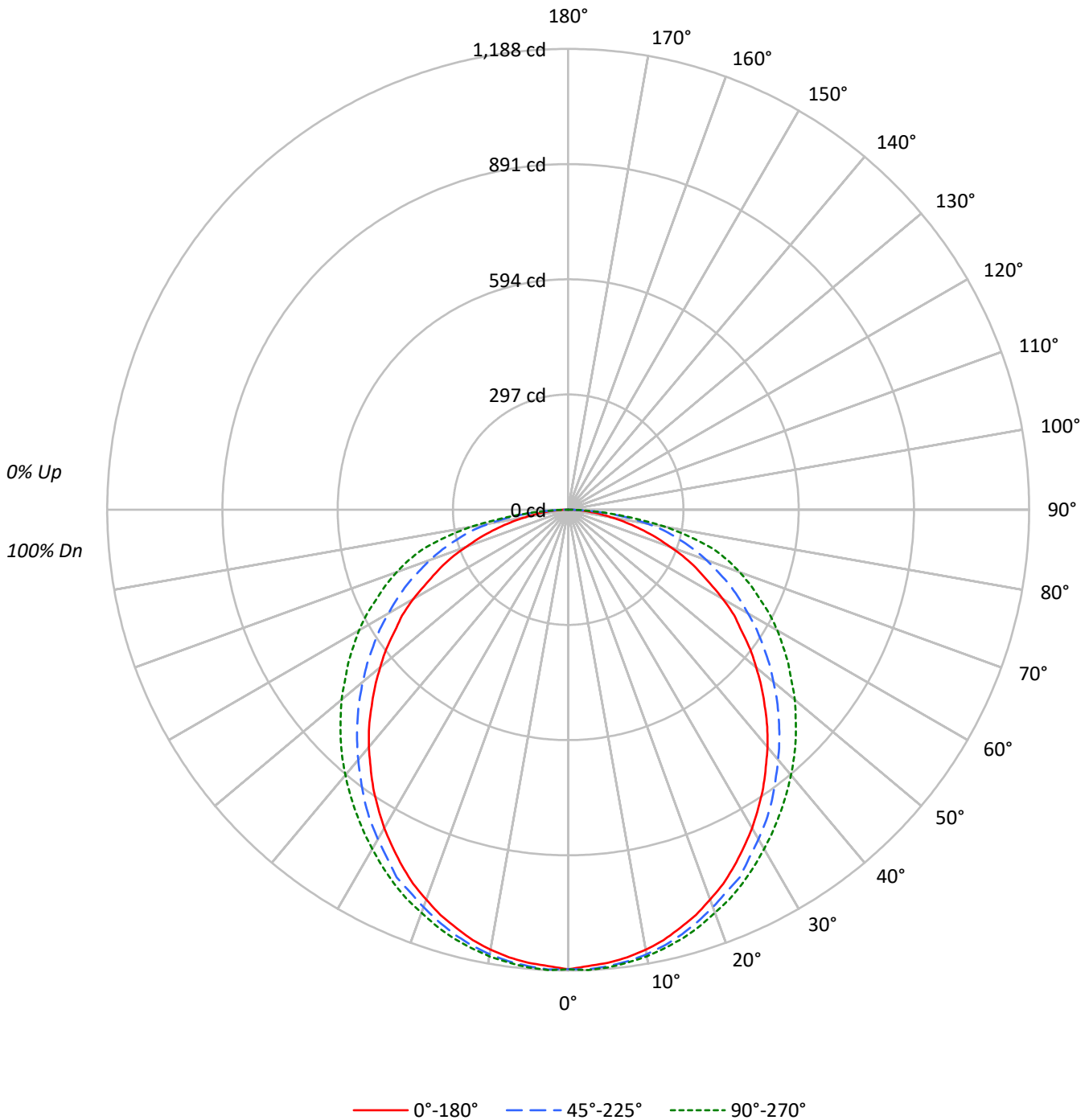
Lumens per Lamp: N/A
Luminaire Lumens: 3483.5 lumens
Efficiency: N/A
Efficacy: 121.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 28.6
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°	3187	3187	3187
5°	3167	3190	3200
10°	3148	3180	3194
15°	3109	3156	3185
20°	3063	3122	3166
25°	3008	3105	3156
30°	2945	3047	3137
35°	2877	3007	3131
40°	2806	2956	3137
45°	2727	2922	3157
50°	2648	2892	3193
55°	2557	2879	3249
60°	2482	2878	3349
65°	2357	2925	3471
70°	2198	2980	3696
75°	2014	3083	3993
80°	1753	3214	3932
85°	1535	2859	3122



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.0	3.2
10°-20°	319.1	9.2
20°-30°	479.0	13.7
30°-40°	572.3	16.4
40°-50°	595.1	17.1
50°-60°	551.6	15.8
60°-70°	452.4	13.0
70°-80°	305.8	8.8
80°-90°	96.1	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°	910.0	26.1
0°-40°	1482.4	42.6
0°-60°	2629.1	75.5
0°-90°	3483.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3483.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1184	1184	1184	1184	1184	
5°	1172	1174	1181	1183	1184	111
15°	1116	1121	1133	1140	1143	315
25°	1013	1022	1046	1058	1063	467
35°	876	888	915	943	953	547
45°	716	730	768	812	830	553
55°	545	562	614	668	692	490
65°	370	391	459	519	545	366
75°	194	226	296	356	384	205
85°	50	69	93	103	101	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1184.5	1184.5	1184.5	1184.5	1184.5
2.5°	1177.6	1181.0	1186.2	1187.9	1187.9
5°	1172.5	1174.2	1181.0	1182.7	1184.5
7.5°	1163.9	1167.3	1174.2	1175.9	1177.6
10°	1151.9	1155.3	1163.9	1167.3	1169.0
12.5°	1136.5	1139.9	1150.2	1155.3	1157.0
15°	1115.9	1121.0	1133.0	1139.9	1143.3
17.5°	1095.3	1100.5	1112.5	1122.7	1126.2
20°	1069.6	1081.6	1090.2	1103.9	1105.6
22.5°	1043.9	1050.8	1066.2	1079.9	1086.7
25°	1013.0	1021.6	1045.6	1057.6	1062.8
27.5°	980.5	992.5	1011.3	1030.2	1037.0
30°	947.9	956.5	980.5	1002.8	1009.6
32.5°	911.9	923.9	949.6	971.9	982.2
35°	875.9	887.9	915.3	942.8	953.0
37.5°	836.5	850.2	877.6	910.2	923.9
40°	798.8	809.1	841.6	881.1	893.1
42.5°	759.4	771.4	805.6	848.5	862.2
45°	716.5	730.2	767.9	812.5	829.6
47.5°	675.4	689.1	730.2	774.8	795.3
50°	632.5	649.6	690.8	742.2	762.8
52.5°	591.4	606.8	653.1	706.2	725.1
55°	545.1	562.2	613.7	668.5	692.5
57.5°	507.4	519.4	575.9	632.5	656.5
60°	461.1	476.5	534.8	594.8	622.2
62.5°	411.4	437.1	497.1	558.8	586.2
65°	370.2	390.8	459.4	519.4	545.1
67.5°	327.4	349.7	416.5	480.0	509.1
70°	279.4	308.5	378.8	442.2	469.7
72.5°	236.5	267.4	339.4	401.1	430.2
75°	193.7	226.3	296.5	356.5	384.0
77.5°	152.6	188.6	257.1	303.4	320.5
80°	113.1	147.4	207.4	240.0	253.7
82.5°	78.8	108.0	152.6	169.7	173.1
85°	49.7	68.6	92.6	102.8	101.1
87.5°	22.3	27.4	34.3	37.7	36.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)