

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: P390627

Luminaire Tested: **22CZ2-70VHE-RDP-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: P390627  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-70VHE-RDP-UNV-L940-CD1-SDWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RDP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3933.4 lumens  
Efficiency: N/A  
Efficacy: 78.2 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

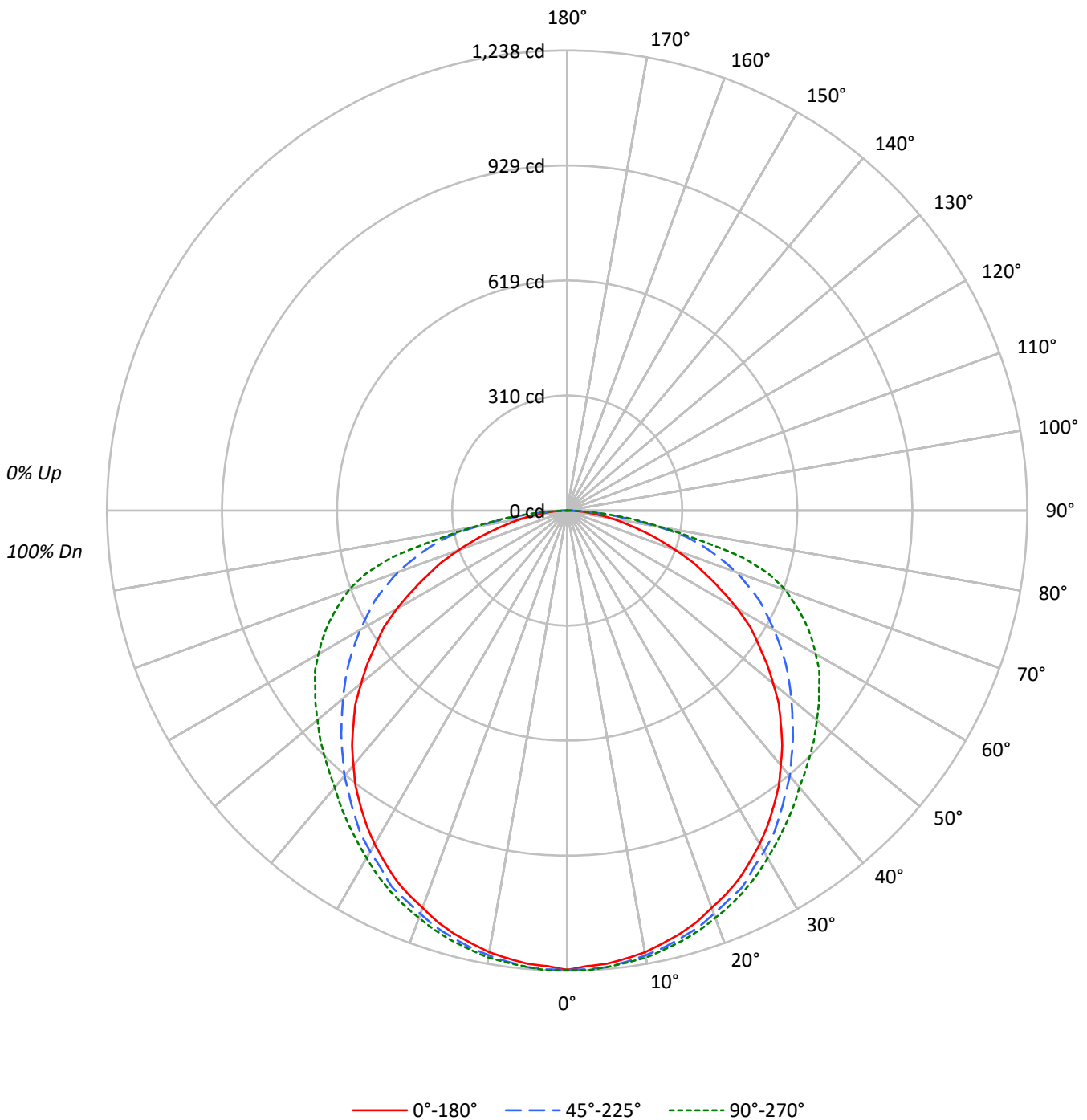
Input Watts (W): 50.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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					100			
1	108	103	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	82					82			
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67					67			
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55					55			
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47					47			
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40					40			
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35					35			
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31					31			
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27					27			
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24					24			
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22					22			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3325	3325	3325
5°	3306	3330	3330
10°	3297	3321	3337
15°	3281	3313	3337
20°	3257	3306	3339
25°	3248	3316	3351
30°	3219	3291	3354
35°	3184	3279	3374
40°	3141	3273	3415
45°	3094	3271	3524
50°	3028	3295	3670
55°	2946	3367	3883
60°	2850	3457	4158
65°	2653	3629	4495
70°	2436	3802	4917
75°	2136	4001	5084
80°	1838	3812	3990
85°	1609	2770	3038



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.9	3.0
10°-20°	335.6	8.5
20°-30°	512.0	13.0
30°-40°	625.1	15.9
40°-50°	668.4	17.0
50°-60°	645.2	16.4
60°-70°	555.4	14.1
70°-80°	375.7	9.6
80°-90°	99.1	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°	964.4	24.5
0°-40°	1589.6	40.4
0°-60°	2903.1	73.8
0°-90°	3933.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3933.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1236	1236	1236	1236	1236	
5°	1224	1227	1233	1233	1233	116
15°	1178	1181	1189	1195	1198	332
25°	1094	1100	1117	1123	1128	503
35°	969	978	998	1018	1027	607
45°	813	828	859	903	926	628
55°	628	648	718	790	828	563
65°	417	457	570	660	706	414
75°	205	272	385	463	489	220
85°	52	72	90	93	98	59
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1235.5	1235.5	1235.5	1235.5	1235.5
2.5°	1226.9	1229.8	1235.5	1235.5	1238.4
5°	1224.0	1226.9	1232.7	1232.7	1232.7
7.5°	1215.3	1218.2	1224.0	1226.9	1226.9
10°	1206.6	1209.5	1215.3	1218.2	1221.1
12.5°	1192.1	1195.0	1203.7	1209.5	1209.5
15°	1177.7	1180.6	1189.3	1195.0	1197.9
17.5°	1160.3	1166.1	1174.8	1180.6	1183.5
20°	1137.2	1143.0	1154.5	1163.2	1166.1
22.5°	1116.9	1122.7	1134.3	1143.0	1148.7
25°	1093.8	1099.6	1116.9	1122.7	1128.5
27.5°	1064.8	1070.6	1085.1	1096.7	1105.3
30°	1035.9	1041.7	1059.0	1073.5	1079.3
32.5°	1004.1	1012.7	1033.0	1044.6	1053.3
35°	969.3	978.0	998.3	1018.5	1027.2
37.5°	934.6	943.3	963.6	989.6	1001.2
40°	894.1	905.7	931.7	966.4	972.2
42.5°	856.5	871.0	894.1	934.6	949.1
45°	813.1	827.6	859.4	902.8	925.9
47.5°	772.6	787.0	821.8	873.9	902.8
50°	723.4	743.6	787.0	847.8	876.7
52.5°	677.1	694.5	752.3	818.9	853.6
55°	627.9	648.2	717.6	789.9	827.6
57.5°	584.5	601.9	680.0	761.0	804.4
60°	529.5	552.7	642.4	729.2	772.6
62.5°	471.7	506.4	604.8	694.5	740.8
65°	416.7	457.2	570.0	659.7	706.0
67.5°	367.5	410.9	526.6	622.1	665.5
70°	309.6	364.6	483.2	575.8	625.0
72.5°	257.5	318.3	434.0	526.6	570.0
75°	205.4	272.0	384.8	463.0	489.0
77.5°	159.1	222.8	329.9	353.0	355.9
80°	118.6	176.5	246.0	248.8	257.5
82.5°	81.0	124.4	159.1	173.6	176.5
85°	52.1	72.3	89.7	92.6	98.4
87.5°	23.1	26.0	31.8	28.9	28.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)