

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: P390269

Luminaire Tested: **22CZ2-34VHE-HRP-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: P390269  
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: 22CZ2-34VHE-HRP-UNV-L940-CD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND HRP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2608.9 lumens  
Efficiency: N/A  
Efficacy: 103.9 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

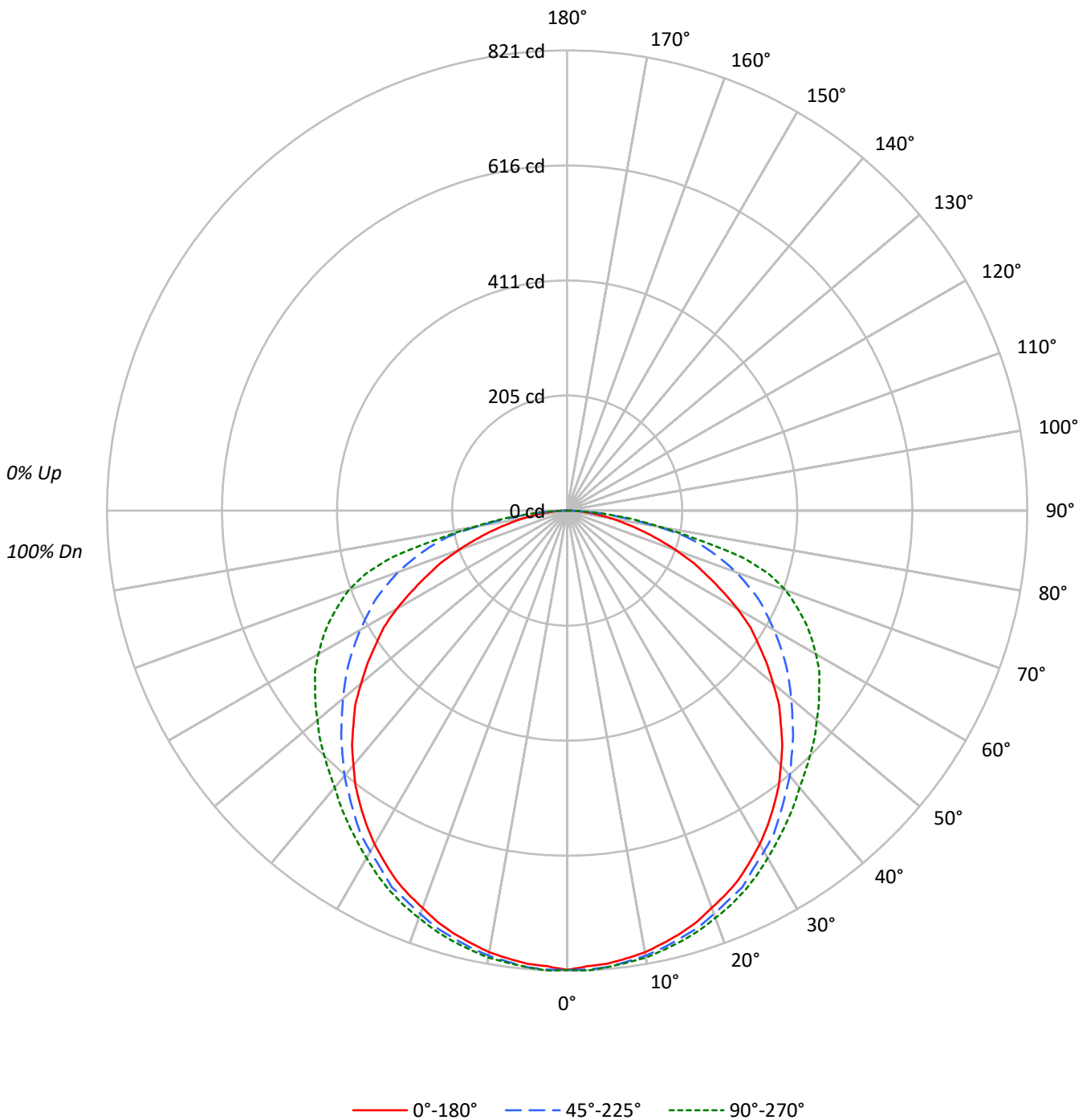
Input Watts (W): 25.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°	45°	90°
0°	2205	2205	2205
5°	2193	2209	2209
10°	2187	2203	2213
15°	2176	2198	2214
20°	2160	2193	2215
25°	2154	2200	2222
30°	2135	2183	2224
35°	2112	2175	2238
40°	2083	2171	2265
45°	2052	2169	2337
50°	2009	2185	2434
55°	1954	2233	2575
60°	1890	2293	2758
65°	1760	2408	2982
70°	1616	2522	3261
75°	1417	2654	3372
80°	1220	2528	2647
85°	1065	1837	2016



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.5	3.0
10°-20°	222.6	8.5
20°-30°	339.6	13.0
30°-40°	414.6	15.9
40°-50°	443.3	17.0
50°-60°	427.9	16.4
60°-70°	368.4	14.1
70°-80°	249.2	9.6
80°-90°	65.8	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°	639.7	24.5
0°-40°	1054.3	40.4
0°-60°	1925.5	73.8
0°-90°	2608.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2608.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	820	820	820	820	820	
5°	812	814	818	818	818	77
15°	781	783	789	793	795	220
25°	726	729	741	745	748	334
35°	643	649	662	676	681	402
45°	539	549	570	599	614	416
55°	416	430	476	524	549	373
65°	276	303	378	438	468	275
75°	136	180	255	307	324	146
85°	34	48	60	61	65	39
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	819.5	819.5	819.5	819.5	819.5
2.5°	813.7	815.7	819.5	819.5	821.4
5°	811.8	813.7	817.6	817.6	817.6
7.5°	806.1	808.0	811.8	813.7	813.7
10°	800.3	802.2	806.1	808.0	809.9
12.5°	790.7	792.6	798.4	802.2	802.2
15°	781.1	783.0	788.8	792.6	794.6
17.5°	769.6	773.4	779.2	783.0	785.0
20°	754.2	758.1	765.8	771.5	773.4
22.5°	740.8	744.7	752.3	758.1	761.9
25°	725.5	729.3	740.8	744.7	748.5
27.5°	706.3	710.1	719.7	727.4	733.1
30°	687.1	690.9	702.4	712.0	715.9
32.5°	666.0	671.7	685.2	692.8	698.6
35°	642.9	648.7	662.1	675.6	681.3
37.5°	619.9	625.7	639.1	656.4	664.0
40°	593.0	600.7	618.0	641.0	644.9
42.5°	568.1	577.7	593.0	619.9	629.5
45°	539.3	548.9	570.0	598.8	614.1
47.5°	512.4	522.0	545.1	579.6	598.8
50°	479.8	493.2	522.0	562.3	581.5
52.5°	449.1	460.6	499.0	543.1	566.2
55°	416.5	429.9	476.0	523.9	548.9
57.5°	387.7	399.2	451.0	504.8	533.5
60°	351.2	366.6	426.1	483.6	512.4
62.5°	312.8	335.9	401.1	460.6	491.3
65°	276.4	303.2	378.1	437.6	468.3
67.5°	243.7	272.5	349.3	412.6	441.4
70°	205.4	241.8	320.5	381.9	414.5
72.5°	170.8	211.1	287.9	349.3	378.1
75°	136.3	180.4	255.3	307.1	324.3
77.5°	105.6	147.8	218.8	234.1	236.1
80°	78.7	117.1	163.1	165.1	170.8
82.5°	53.7	82.5	105.6	115.2	117.1
85°	34.5	48.0	59.5	61.4	65.3
87.5°	15.4	17.3	21.1	19.2	19.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)