

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: P390196

Luminaire Tested: **22CZ2-24VHE-RDP-UNV-L940-CD1-SWPD1-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: P390196
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: 22CZ2-24VHE-RDP-UNV-L940-CD1-SWPD1-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: 1419.1 lumens
Efficiency: N/A
Efficacy: 81.1 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

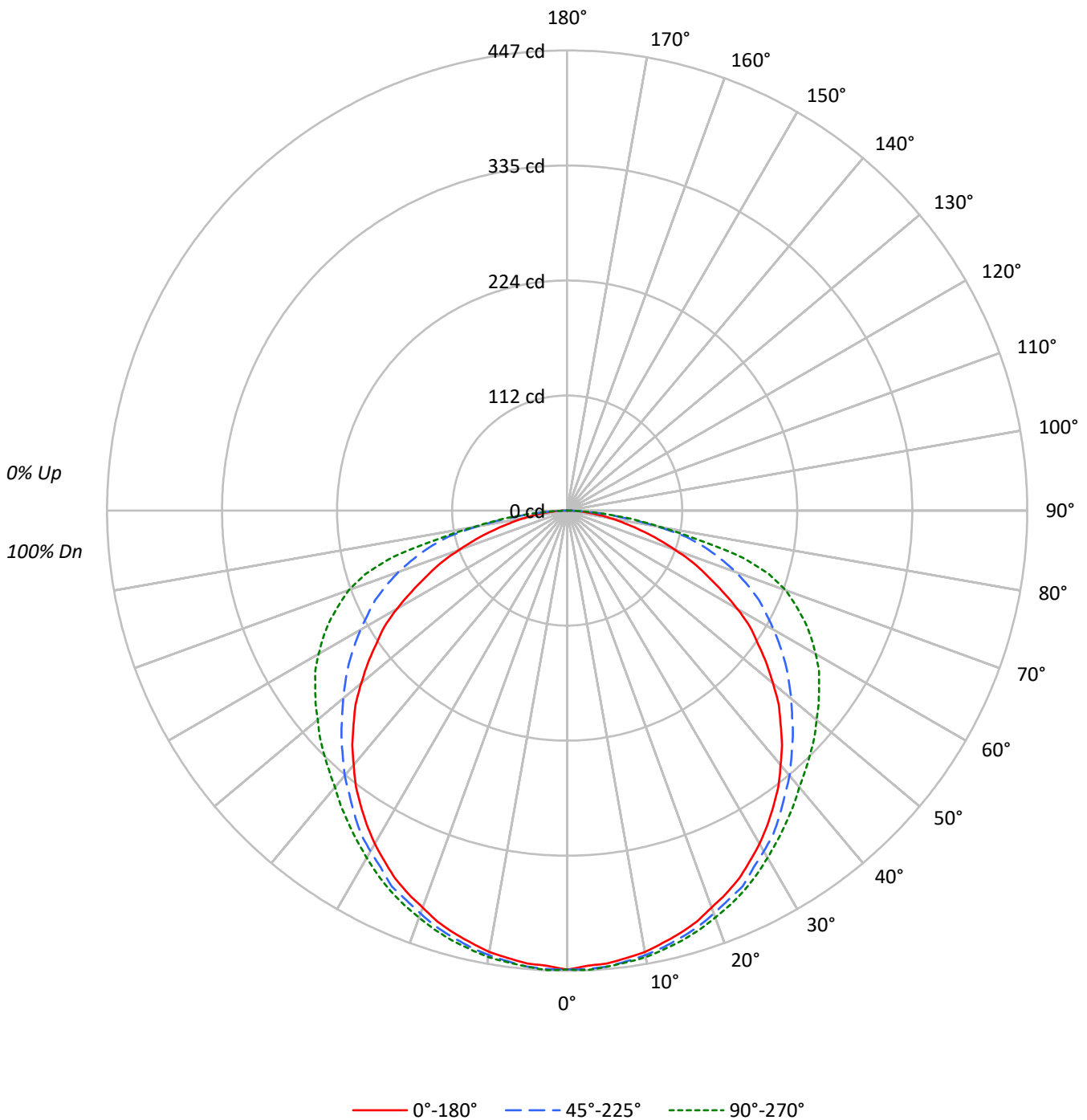
Input Watts (W): 17.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1200	1200	1200
5°	1193	1201	1201
10°	1189	1198	1204
15°	1184	1195	1204
20°	1175	1193	1205
25°	1172	1197	1209
30°	1161	1187	1210
35°	1149	1183	1217
40°	1133	1181	1232
45°	1116	1180	1271
50°	1093	1189	1324
55°	1063	1215	1401
60°	1028	1248	1500
65°	957	1310	1622
70°	879	1371	1774
75°	770	1443	1834
80°	663	1375	1440
85°	580	1000	1096



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.2	3.0
10°-20°	121.1	8.5
20°-30°	184.7	13.0
30°-40°	225.5	15.9
40°-50°	241.2	17.0
50°-60°	232.8	16.4
60°-70°	200.4	14.1
70°-80°	135.6	9.6
80°-90°	35.8	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°	348.0	24.5
0°-40°	573.5	40.4
0°-60°	1047.4	73.8
0°-90°	1419.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1419.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	446	446	446	446	446	
5°	442	443	445	445	445	42
15°	425	426	429	431	432	120
25°	395	397	403	405	407	182
35°	350	353	360	368	371	219
45°	293	299	310	326	334	226
55°	226	234	259	285	299	203
65°	150	165	206	238	255	150
75°	74	98	139	167	176	80
85°	19	26	32	33	36	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	445.8	445.8	445.8	445.8	445.8
2.5°	442.6	443.7	445.8	445.8	446.8
5°	441.6	442.6	444.7	444.7	444.7
7.5°	438.5	439.5	441.6	442.6	442.6
10°	435.3	436.4	438.5	439.5	440.5
12.5°	430.1	431.1	434.3	436.4	436.4
15°	424.9	425.9	429.1	431.1	432.2
17.5°	418.6	420.7	423.8	425.9	427.0
20°	410.3	412.4	416.5	419.7	420.7
22.5°	403.0	405.1	409.2	412.4	414.4
25°	394.6	396.7	403.0	405.1	407.1
27.5°	384.2	386.3	391.5	395.7	398.8
30°	373.7	375.8	382.1	387.3	389.4
32.5°	362.2	365.4	372.7	376.9	380.0
35°	349.7	352.9	360.2	367.5	370.6
37.5°	337.2	340.3	347.6	357.0	361.2
40°	322.6	326.8	336.1	348.7	350.8
42.5°	309.0	314.2	322.6	337.2	342.4
45°	293.3	298.6	310.1	325.7	334.1
47.5°	278.7	284.0	296.5	315.3	325.7
50°	261.0	268.3	284.0	305.9	316.3
52.5°	244.3	250.5	271.4	295.4	308.0
55°	226.5	233.8	258.9	285.0	298.6
57.5°	210.9	217.1	245.3	274.6	290.2
60°	191.0	199.4	231.8	263.1	278.7
62.5°	170.2	182.7	218.2	250.5	267.2
65°	150.3	164.9	205.7	238.0	254.7
67.5°	132.6	148.2	190.0	224.4	240.1
70°	111.7	131.5	174.3	207.7	225.5
72.5°	92.9	114.8	156.6	190.0	205.7
75°	74.1	98.1	138.8	167.0	176.4
77.5°	57.4	80.4	119.0	127.4	128.4
80°	42.8	63.7	88.7	89.8	92.9
82.5°	29.2	44.9	57.4	62.6	63.7
85°	18.8	26.1	32.4	33.4	35.5
87.5°	8.4	9.4	11.5	10.4	10.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)