

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: P390601

Luminaire Tested: **22CZ2-70VHE-HRP-UNV-L935-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: P390601
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-HRP-UNV-L935-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4973.4 lumens
Efficiency: N/A
Efficacy: 98.9 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

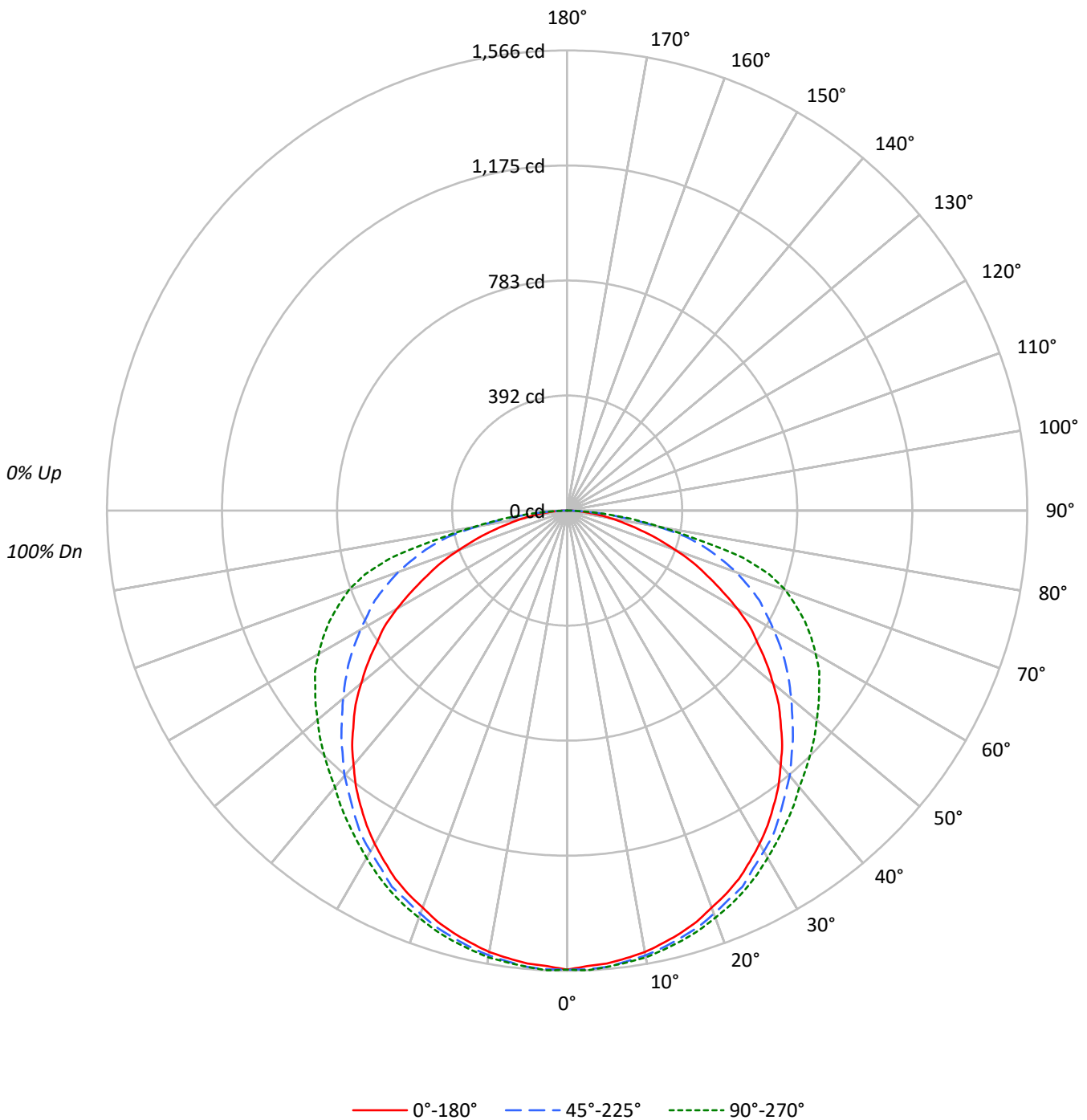
Input Watts (W): 50.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	4204	4204	4204
5°	4180	4210	4210
10°	4169	4199	4219
15°	4148	4189	4220
20°	4117	4180	4222
25°	4106	4193	4237
30°	4070	4161	4240
35°	4026	4146	4267
40°	3971	4138	4318
45°	3913	4135	4456
50°	3829	4166	4641
55°	3725	4257	4909
60°	3603	4371	5258
65°	3354	4589	5684
70°	3080	4807	6218
75°	2701	5059	6429
80°	2325	4819	5046
85°	2035	3501	3841



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.8	3.0
10°-20°	424.3	8.5
20°-30°	647.3	13.0
30°-40°	790.4	15.9
40°-50°	845.1	17.0
50°-60°	815.7	16.4
60°-70°	702.2	14.1
70°-80°	475.1	9.6
80°-90°	125.4	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°	1219.4	24.5
0°-40°	2009.8	40.4
0°-60°	3670.7	73.8
0°-90°	4973.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4973.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1562	1562	1562	1562	1562	
5°	1548	1551	1559	1559	1559	147
15°	1489	1493	1504	1511	1515	420
25°	1383	1390	1412	1420	1427	636
35°	1226	1237	1262	1288	1299	767
45°	1028	1046	1087	1142	1171	794
55°	794	820	907	999	1046	711
65°	527	578	721	834	893	524
75°	260	344	487	585	618	279
85°	66	92	113	117	124	74
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1562.2	1562.2	1562.2	1562.2	1562.2
2.5°	1551.3	1554.9	1562.2	1562.2	1565.9
5°	1547.6	1551.3	1558.6	1558.6	1558.6
7.5°	1536.6	1540.3	1547.6	1551.3	1551.3
10°	1525.6	1529.3	1536.6	1540.3	1543.9
12.5°	1507.4	1511.0	1522.0	1529.3	1529.3
15°	1489.1	1492.7	1503.7	1511.0	1514.7
17.5°	1467.1	1474.4	1485.4	1492.7	1496.4
20°	1437.8	1445.2	1459.8	1470.8	1474.4
22.5°	1412.2	1419.5	1434.2	1445.2	1452.5
25°	1383.0	1390.3	1412.2	1419.5	1426.9
27.5°	1346.4	1353.7	1372.0	1386.6	1397.6
30°	1309.8	1317.1	1339.1	1357.3	1364.7
32.5°	1269.5	1280.5	1306.1	1320.8	1331.7
35°	1225.6	1236.6	1262.2	1287.8	1298.8
37.5°	1181.7	1192.7	1218.3	1251.2	1265.9
40°	1130.5	1145.1	1178.1	1222.0	1229.3
42.5°	1083.0	1101.2	1130.5	1181.7	1200.0
45°	1028.1	1046.4	1086.6	1141.5	1170.8
47.5°	976.9	995.1	1039.0	1104.9	1141.5
50°	914.7	940.3	995.1	1072.0	1108.6
52.5°	856.1	878.1	951.2	1035.4	1079.3
55°	793.9	819.5	907.3	998.8	1046.4
57.5°	739.0	761.0	859.8	962.2	1017.1
60°	669.5	698.8	812.2	922.0	976.9
62.5°	596.4	640.3	764.7	878.1	936.6
65°	526.8	578.1	720.7	834.2	892.7
67.5°	464.6	519.5	665.9	786.6	841.5
70°	391.5	461.0	611.0	728.1	790.3
72.5°	325.6	402.4	548.8	665.9	720.7
75°	259.8	343.9	486.6	585.4	618.3
77.5°	201.2	281.7	417.1	446.4	450.0
80°	150.0	223.2	311.0	314.6	325.6
82.5°	102.4	157.3	201.2	219.5	223.2
85°	65.9	91.5	113.4	117.1	124.4
87.5°	29.3	32.9	40.2	36.6	36.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)