

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: P391467

Luminaire Tested: **24CZ2-55VHE-HRP-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: P391467
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-55VHE-HRP-UNV-L940-CD1-SDWPD1-U
Description: 2x4 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: 3940.6 lumens
Efficiency: N/A
Efficacy: 109.2 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

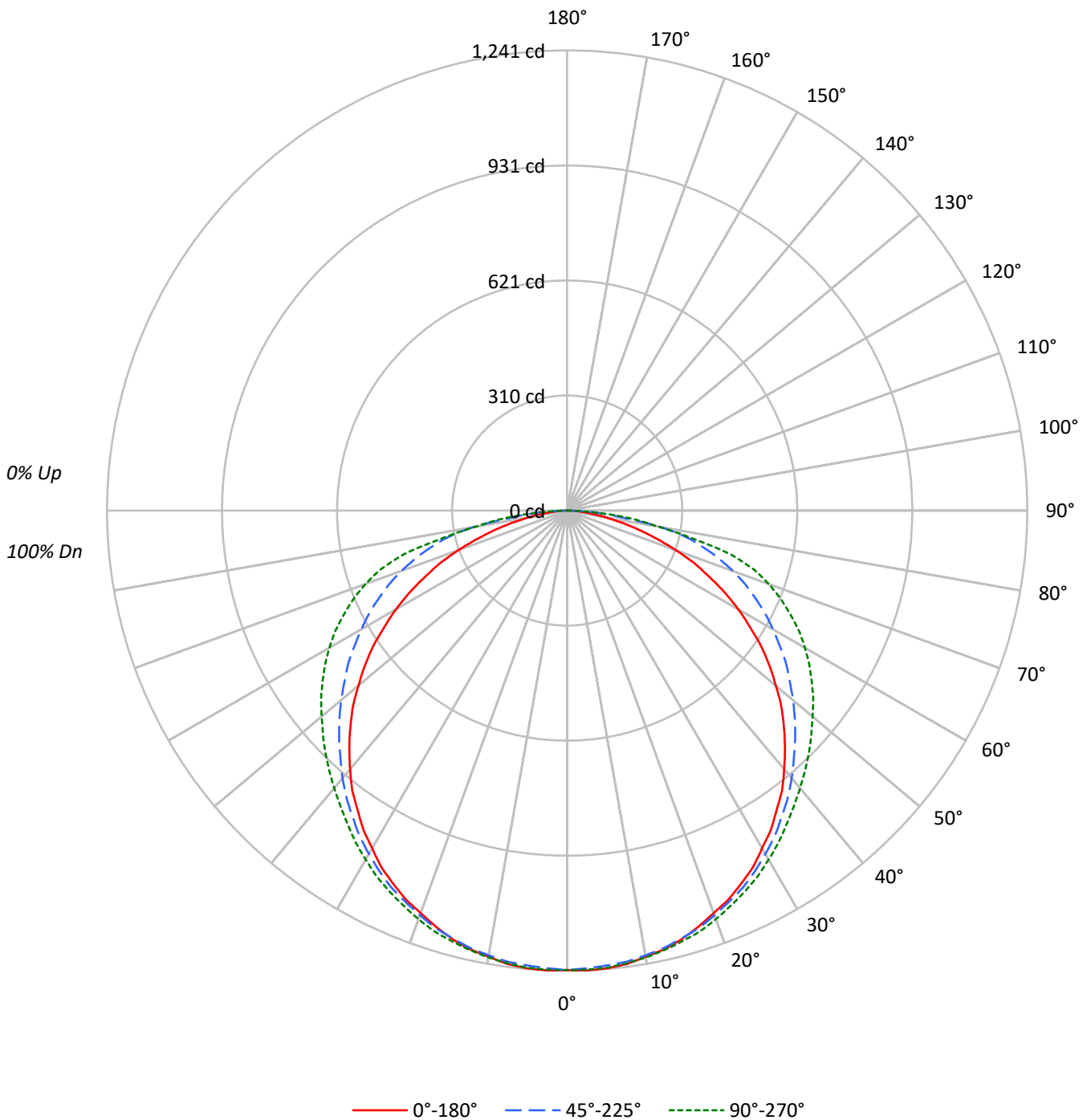
Input Watts (W): 36.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	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°	1667	1667	1667
5°	1674	1663	1671
10°	1669	1664	1672
15°	1666	1664	1674
20°	1654	1662	1679
25°	1648	1666	1683
30°	1634	1661	1688
35°	1618	1657	1695
40°	1600	1655	1717
45°	1573	1655	1756
50°	1538	1665	1808
55°	1499	1692	1889
60°	1436	1725	1993
65°	1344	1786	2116
70°	1223	1869	2276
75°	1037	1971	2378
80°	817	1984	1923
85°	604	1508	1690



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.6	3.0
10°-20°	338.3	8.6
20°-30°	517.3	13.1
30°-40°	632.4	16.0
40°-50°	674.1	17.1
50°-60°	644.5	16.4
60°-70°	546.0	13.9
70°-80°	366.9	9.3
80°-90°	103.5	2.6
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°	973.2	24.7
0°-40°	1605.7	40.7
0°-60°	2924.2	74.2
0°-90°	3940.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3940.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1239	1239	1239	1239	1239	
5°	1239	1237	1231	1237	1237	118
15°	1196	1196	1194	1204	1202	337
25°	1110	1114	1122	1132	1134	512
35°	985	993	1009	1028	1032	617
45°	827	840	870	907	923	638
55°	639	663	721	778	805	569
65°	422	465	561	635	665	419
75°	199	272	379	444	457	213
85°	39	80	98	106	110	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1239.2	1239.2	1239.2	1239.2	1239.2
2.5°	1241.2	1241.2	1235.3	1239.2	1239.2
5°	1239.2	1237.3	1231.4	1237.3	1237.3
7.5°	1233.3	1231.4	1227.5	1233.3	1231.4
10°	1221.6	1221.6	1217.7	1223.6	1223.6
12.5°	1211.8	1209.9	1207.9	1215.8	1213.8
15°	1196.2	1196.2	1194.3	1204.0	1202.1
17.5°	1176.7	1178.6	1180.6	1188.4	1190.3
20°	1155.2	1159.1	1161.0	1172.8	1172.8
22.5°	1135.6	1137.6	1141.5	1153.2	1153.2
25°	1110.2	1114.1	1121.9	1131.7	1133.7
27.5°	1084.8	1086.7	1096.5	1110.2	1112.2
30°	1051.6	1057.4	1069.2	1084.8	1086.7
32.5°	1022.2	1028.1	1041.8	1057.4	1061.3
35°	985.1	992.9	1008.6	1028.1	1032.0
37.5°	951.9	957.7	977.3	998.8	1004.7
40°	910.8	922.6	942.1	967.5	977.3
42.5°	869.8	881.5	905.0	938.2	949.9
45°	826.8	840.5	869.8	906.9	922.6
47.5°	783.8	799.4	832.7	875.7	893.2
50°	734.9	754.5	795.5	844.4	863.9
52.5°	688.0	711.5	756.4	811.2	836.6
55°	639.1	662.6	721.2	777.9	805.3
57.5°	584.4	615.7	680.2	744.7	774.0
60°	533.6	562.9	641.1	711.5	740.8
62.5°	478.9	518.0	602.0	676.3	705.6
65°	422.2	465.2	561.0	635.2	664.6
67.5°	371.4	418.3	519.9	594.2	623.5
70°	310.8	369.4	475.0	549.2	578.6
72.5°	254.1	318.6	428.1	500.4	527.7
75°	199.4	271.7	379.2	443.7	457.4
77.5°	148.5	224.8	328.4	355.7	346.0
80°	105.5	179.8	256.1	242.4	248.2
82.5°	68.4	136.8	158.3	179.8	185.7
85°	39.1	80.1	97.7	105.5	109.5
87.5°	17.6	29.3	39.1	39.1	37.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)