

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: P391590

Luminaire Tested: **24CZ2-65VHE-RDP-UNV-L950-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: P391590
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: 24CZ2-65VHE-RDP-UNV-L950-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3906.1 lumens
Efficiency: N/A
Efficacy: 92.6 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

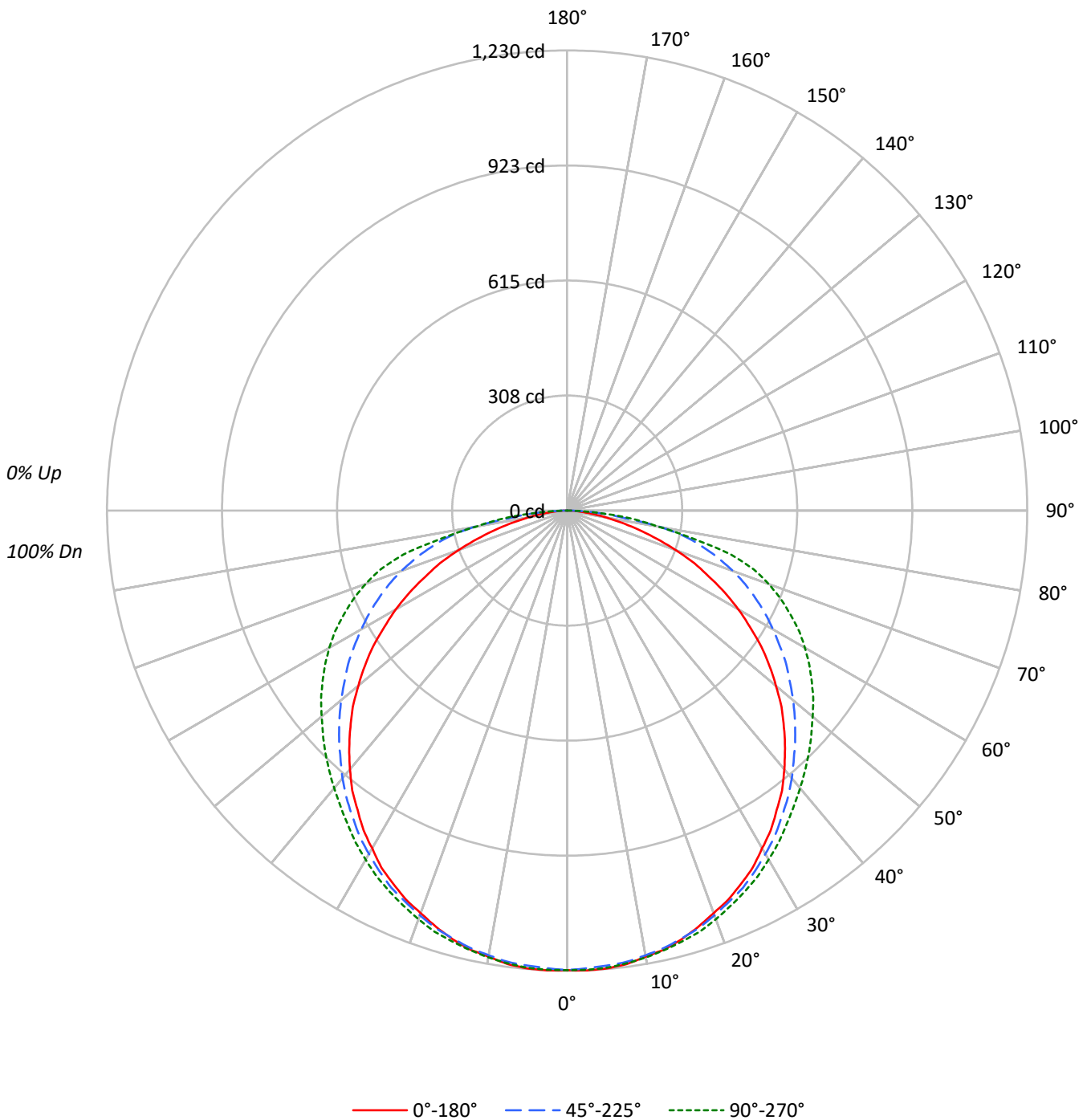
Input Watts (W): 42.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	68	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°	1653	1653	1653
5°	1659	1649	1656
10°	1654	1649	1657
15°	1652	1649	1660
20°	1639	1648	1665
25°	1634	1651	1668
30°	1620	1647	1674
35°	1604	1642	1680
40°	1586	1640	1701
45°	1560	1641	1740
50°	1525	1651	1793
55°	1486	1677	1872
60°	1423	1710	1976
65°	1332	1770	2097
70°	1212	1852	2256
75°	1027	1954	2357
80°	810	1967	1907
85°	597	1496	1675



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.5	3.0
10°-20°	335.3	8.6
20°-30°	512.8	13.1
30°-40°	626.9	16.0
40°-50°	668.2	17.1
50°-60°	638.8	16.4
60°-70°	541.2	13.9
70°-80°	363.7	9.3
80°-90°	102.6	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°	964.7	24.7
0°-40°	1591.6	40.7
0°-60°	2898.6	74.2
0°-90°	3906.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3906.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1228	1228	1228	1228	1228	
5°	1228	1226	1221	1226	1226	117
15°	1186	1186	1184	1194	1192	334
25°	1100	1104	1112	1122	1124	507
35°	976	984	1000	1019	1023	612
45°	820	833	862	899	914	632
55°	634	657	715	771	798	564
65°	418	461	556	630	659	415
75°	198	269	376	440	453	212
85°	39	79	97	105	108	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1228.4	1228.4	1228.4	1228.4	1228.4
2.5°	1230.3	1230.3	1224.5	1228.4	1228.4
5°	1228.4	1226.4	1220.6	1226.4	1226.4
7.5°	1222.5	1220.6	1216.7	1222.5	1220.6
10°	1210.9	1210.9	1207.0	1212.9	1212.9
12.5°	1201.2	1199.3	1197.4	1205.1	1203.2
15°	1185.7	1185.7	1183.8	1193.5	1191.5
17.5°	1166.4	1168.3	1170.2	1178.0	1179.9
20°	1145.0	1148.9	1150.9	1162.5	1162.5
22.5°	1125.7	1127.6	1131.5	1143.1	1143.1
25°	1100.5	1104.4	1112.1	1121.8	1123.7
27.5°	1075.3	1077.2	1086.9	1100.5	1102.4
30°	1042.4	1048.2	1059.8	1075.3	1077.2
32.5°	1013.3	1019.1	1032.7	1048.2	1052.0
35°	976.5	984.2	999.7	1019.1	1023.0
37.5°	943.5	949.4	968.7	990.0	995.9
40°	902.9	914.5	933.9	959.0	968.7
42.5°	862.2	873.8	897.0	930.0	941.6
45°	819.6	833.1	862.2	899.0	914.5
47.5°	776.9	792.4	825.4	868.0	885.4
50°	728.5	747.9	788.6	837.0	856.4
52.5°	682.0	705.2	749.8	804.1	829.2
55°	633.6	656.8	714.9	771.1	798.2
57.5°	579.3	610.3	674.2	738.2	767.2
60°	528.9	558.0	635.5	705.2	734.3
62.5°	474.7	513.4	596.7	670.4	699.4
65°	418.5	461.1	556.1	629.7	658.7
67.5°	368.1	414.6	515.4	589.0	618.1
70°	308.1	366.2	470.8	544.4	573.5
72.5°	251.9	315.8	424.3	496.0	523.1
75°	197.6	269.3	375.9	439.8	453.4
77.5°	147.2	222.8	325.5	352.6	342.9
80°	104.6	178.2	253.8	240.2	246.1
82.5°	67.8	135.6	156.9	178.2	184.1
85°	38.7	79.4	96.9	104.6	108.5
87.5°	17.4	29.1	38.7	38.7	36.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)