

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: P230930

Luminaire Tested: **14CZ-LD5-44-S-UNV-L940-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230930
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35112)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ-LD5-44-S-UNV-L940-CD1-U
Description: CRUZE 1x4 LED TROFFER
WITH SMOOTH LENS
Light Source: (84) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3957.0 lumens
Efficiency: N/A
Efficacy: 96.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

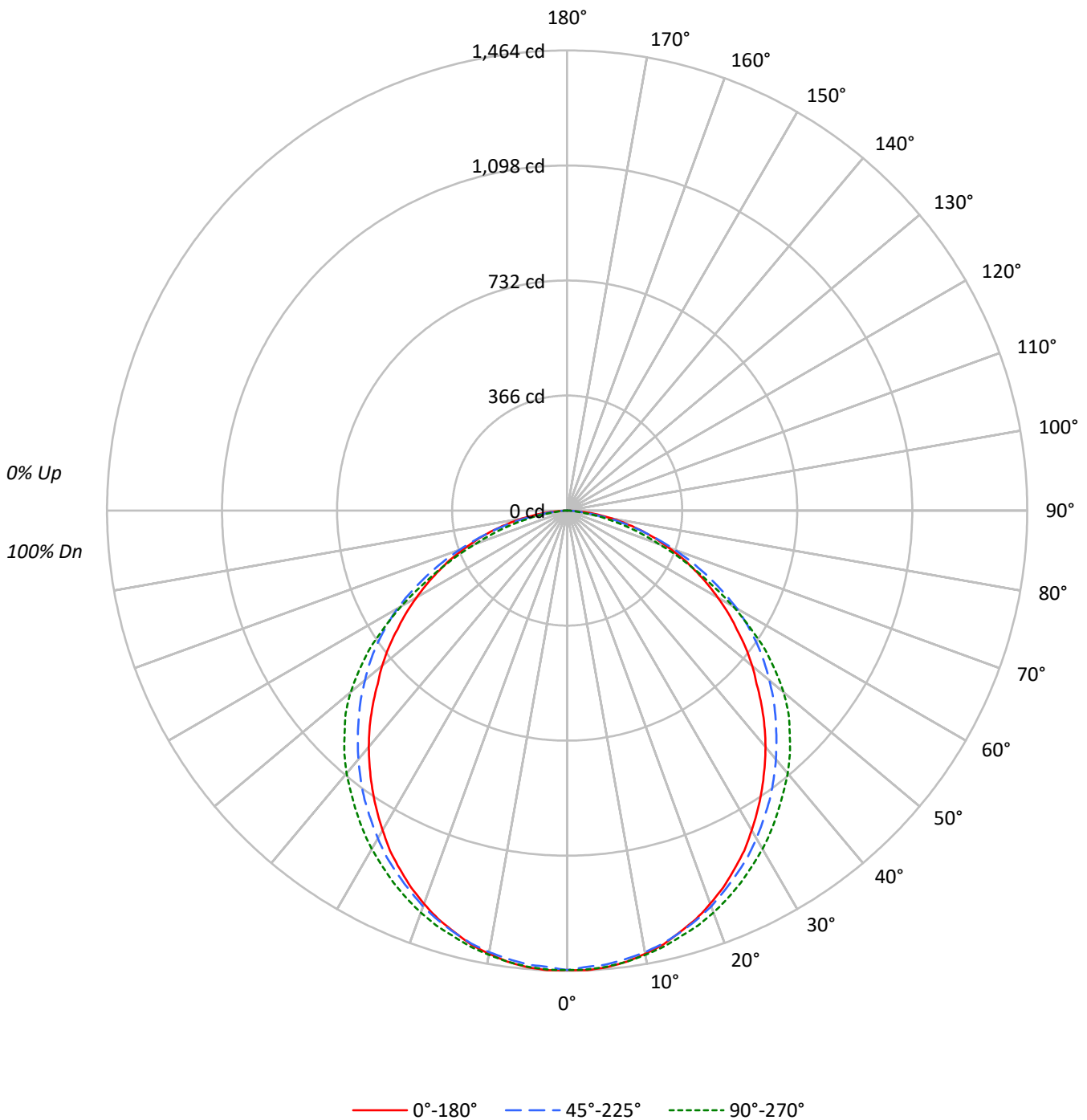
Input Watts (W): 41.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	105	100	97	106	102	98	95	98	95	92	94	92	89	91	89	87	85
2	99	91	85	79	97	89	83	78	86	81	76	83	78	75	80	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	70	66	62	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44
6	71	57	48	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	38	33	43	37	32	31
9	57	44	35	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3933	3933	3933
5°	3939	3915	3934
10°	3912	3898	3922
15°	3866	3871	3905
20°	3812	3838	3898
25°	3738	3790	3880
30°	3649	3742	3863
35°	3551	3690	3840
40°	3450	3630	3834
45°	3328	3570	3811
50°	3219	3514	3764
55°	3094	3458	3598
60°	2980	3359	3284
65°	2852	3144	2885
70°	2692	2858	2441
75°	2512	2475	2017
80°	2213	1912	1475
85°	1741	926	815



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.1	3.5
10°-20°	393.5	9.9
20°-30°	590.5	14.9
30°-40°	704.0	17.8
40°-50°	725.1	18.3
50°-60°	646.2	16.3
60°-70°	465.6	11.8
70°-80°	243.5	6.2
80°-90°	50.4	1.3
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°	1122.1	28.4
0°-40°	1826.1	46.1
0°-60°	3197.5	80.8
0°-90°	3957.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3957.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1462	1462	1462	1462	1462	
5°	1458	1455	1449	1458	1456	138
15°	1388	1389	1389	1404	1402	392
25°	1259	1266	1277	1301	1307	580
35°	1081	1095	1123	1160	1169	676
45°	875	894	938	991	1002	675
55°	659	681	737	770	767	591
65°	448	464	494	471	453	444
75°	242	254	238	206	194	256
85°	56	49	30	26	26	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1461.7	1461.7	1461.7	1461.7	1461.7
2.5°	1463.5	1460.0	1452.9	1461.7	1461.7
5°	1458.2	1454.7	1449.4	1458.2	1456.4
7.5°	1447.6	1444.1	1438.8	1449.4	1447.6
10°	1431.7	1430.0	1426.5	1437.0	1435.3
12.5°	1414.1	1412.3	1410.6	1421.2	1421.2
15°	1387.7	1389.4	1389.4	1403.5	1401.8
17.5°	1363.0	1364.7	1366.5	1384.1	1384.1
20°	1331.2	1333.0	1340.1	1359.4	1361.2
22.5°	1297.7	1299.5	1308.3	1331.2	1334.8
25°	1258.9	1266.0	1276.6	1301.3	1306.6
27.5°	1220.2	1225.4	1243.1	1271.3	1274.8
30°	1174.3	1184.9	1204.3	1236.0	1243.1
32.5°	1128.5	1140.8	1163.7	1199.0	1207.8
35°	1080.9	1095.0	1123.2	1160.2	1169.0
37.5°	1031.5	1043.8	1079.1	1117.9	1130.2
40°	982.1	994.5	1033.3	1077.3	1091.4
42.5°	929.2	946.9	985.6	1035.0	1049.1
45°	874.6	894.0	938.0	990.9	1001.5
47.5°	818.1	839.3	890.4	943.3	955.7
50°	768.8	788.2	839.3	890.4	899.2
52.5°	715.9	733.5	789.9	832.2	834.0
55°	659.4	680.6	737.0	770.5	767.0
57.5°	608.3	625.9	680.6	698.2	687.7
60°	553.7	569.5	624.2	625.9	610.1
62.5°	500.8	516.6	558.9	546.6	527.2
65°	447.9	463.7	493.7	470.8	453.1
67.5°	396.7	410.8	428.5	398.5	380.9
70°	342.1	361.5	363.2	328.0	310.3
72.5°	294.5	305.0	301.5	268.0	252.1
75°	241.6	253.9	238.0	206.3	194.0
77.5°	192.2	201.0	179.8	149.9	141.1
80°	142.8	148.1	123.4	100.5	95.2
82.5°	97.0	97.0	70.5	54.7	49.4
85°	56.4	49.4	30.0	26.4	26.4
87.5°	19.4	12.3	12.3	12.3	12.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)