

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: P230886

Luminaire Tested: **14CZ-LD5-20-UNV-L940-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P230886  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35573)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14CZ-LD5-20-UNV-L940-CD1-U  
Description: CRUZE 1x4 LED TROFFER  
WITH RIBBED LENS  
Light Source: (84) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1789.0 lumens  
Efficiency: N/A  
Efficacy: 109.8 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

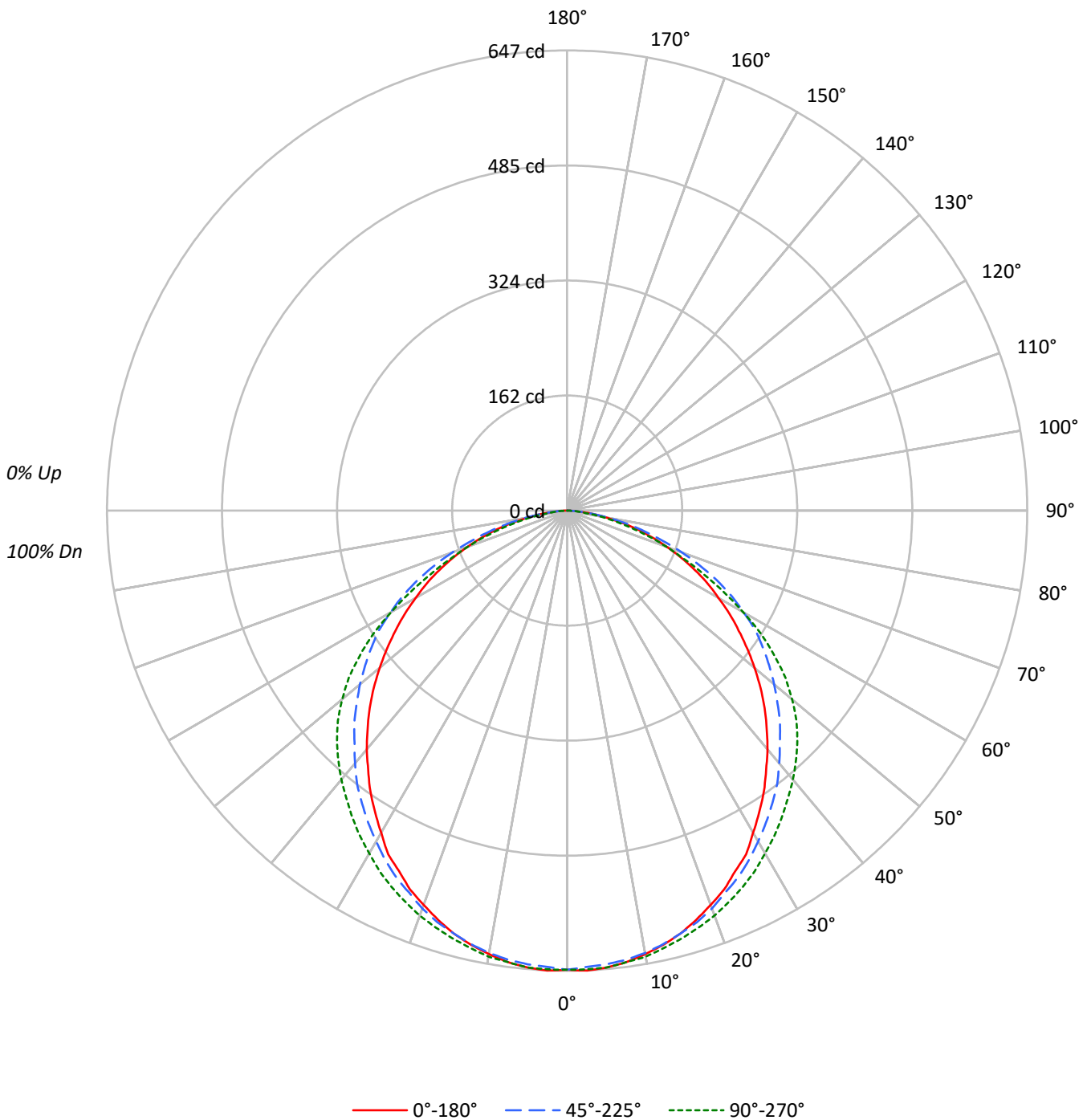
Input Watts (W): 16.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70
3	90	80	72	66	88	78	71	65	75	69	64	73	67	63	70	66	62	59
4	83	71	62	56	81	70	61	55	67	60	54	65	59	54	63	57	53	51
5	76	63	54	48	74	62	54	48	60	53	47	58	52	46	56	51	46	44
6	70	57	48	42	68	56	48	42	54	47	41	53	46	41	51	45	40	38
7	65	52	43	37	63	51	43	37	49	42	36	48	41	36	47	40	36	34
8	61	47	39	33	59	46	38	33	45	38	33	44	37	32	43	37	32	30
9	57	43	35	30	55	43	35	29	42	34	29	40	34	29	39	33	29	27
10	53	40	32	27	52	39	32	27	38	31	27	37	31	26	37	31	26	25

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1737	1737	1737
5°	1742	1730	1742
10°	1730	1726	1740
15°	1715	1715	1735
20°	1690	1705	1735
25°	1660	1689	1734
30°	1625	1669	1729
35°	1585	1651	1730
40°	1540	1630	1735
45°	1494	1611	1742
50°	1440	1591	1728
55°	1382	1576	1672
60°	1324	1542	1538
65°	1263	1477	1348
70°	1173	1346	1166
75°	1064	1174	963
80°	848	930	711
85°	599	519	408



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	61.1	3.4
10°-20°	174.5	9.8
20°-30°	263.1	14.7
30°-40°	315.4	17.6
40°-50°	327.3	18.3
50°-60°	295.2	16.5
60°-70°	215.3	12.0
70°-80°	113.0	6.3
80°-90°	24.1	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°	498.7	27.9
0°-40°	814.1	45.5
0°-60°	1436.6	80.3
0°-90°	1789.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1789.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	646	646	646	646	646	
5°	645	643	640	645	645	61
15°	616	616	616	623	623	173
25°	559	562	569	581	584	258
35°	482	488	503	521	526	301
45°	392	400	423	449	458	303
55°	295	305	336	358	356	264
65°	198	210	232	223	212	196
75°	102	116	113	98	93	107
85°	19	24	17	14	13	25
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	645.6	645.6	645.6	645.6	645.6
2.5°	647.4	645.6	642.1	645.6	645.6
5°	644.7	643.0	640.3	644.7	644.7
7.5°	640.3	638.5	636.8	641.2	640.3
10°	633.3	632.4	631.5	636.8	636.8
12.5°	625.3	625.3	624.4	630.6	629.7
15°	615.6	615.6	615.6	622.7	622.7
17.5°	603.3	605.0	606.8	614.7	614.7
20°	590.0	591.8	595.3	605.0	605.9
22.5°	576.8	577.7	581.2	592.7	595.3
25°	559.2	561.8	568.9	581.2	583.9
27.5°	545.1	545.9	553.9	568.0	571.5
30°	523.0	529.2	537.1	553.0	556.5
32.5°	502.7	508.0	520.4	537.1	542.4
35°	482.4	487.7	502.7	521.2	526.5
37.5°	459.5	467.4	485.1	503.6	509.8
40°	438.3	445.4	463.9	486.8	493.9
42.5°	415.4	422.5	442.7	468.3	476.3
45°	392.5	400.4	423.3	448.9	457.7
47.5°	368.7	377.5	401.3	429.5	437.5
50°	344.0	353.7	380.1	409.2	412.8
52.5°	319.3	329.9	358.1	383.7	387.2
55°	294.6	305.2	336.0	358.1	356.3
57.5°	270.8	282.2	314.0	325.4	323.7
60°	246.1	258.4	286.6	291.9	285.8
62.5°	223.1	234.6	261.1	256.7	248.7
65°	198.4	209.9	232.0	223.1	211.7
67.5°	173.7	187.9	202.0	187.0	178.2
70°	149.1	164.9	171.1	156.1	148.2
72.5°	125.2	142.0	140.2	125.2	119.9
75°	102.3	116.4	112.9	97.9	92.6
77.5°	77.6	93.5	85.6	73.2	68.8
80°	54.7	68.8	60.0	49.4	45.9
82.5°	36.2	45.9	37.0	29.1	26.5
85°	19.4	23.8	16.8	14.1	13.2
87.5°	7.9	7.1	6.2	6.2	5.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)