

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: P230094

Luminaire Tested: **24CZ-LD5-60SE-S-UNV-L940-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P230094  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25694)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ-LD5-60SE-S-UNV-L940-CD1-U  
Description: CRUZE 2x4 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: 5365.0 lumens  
Efficiency: N/A  
Efficacy: 89.4 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

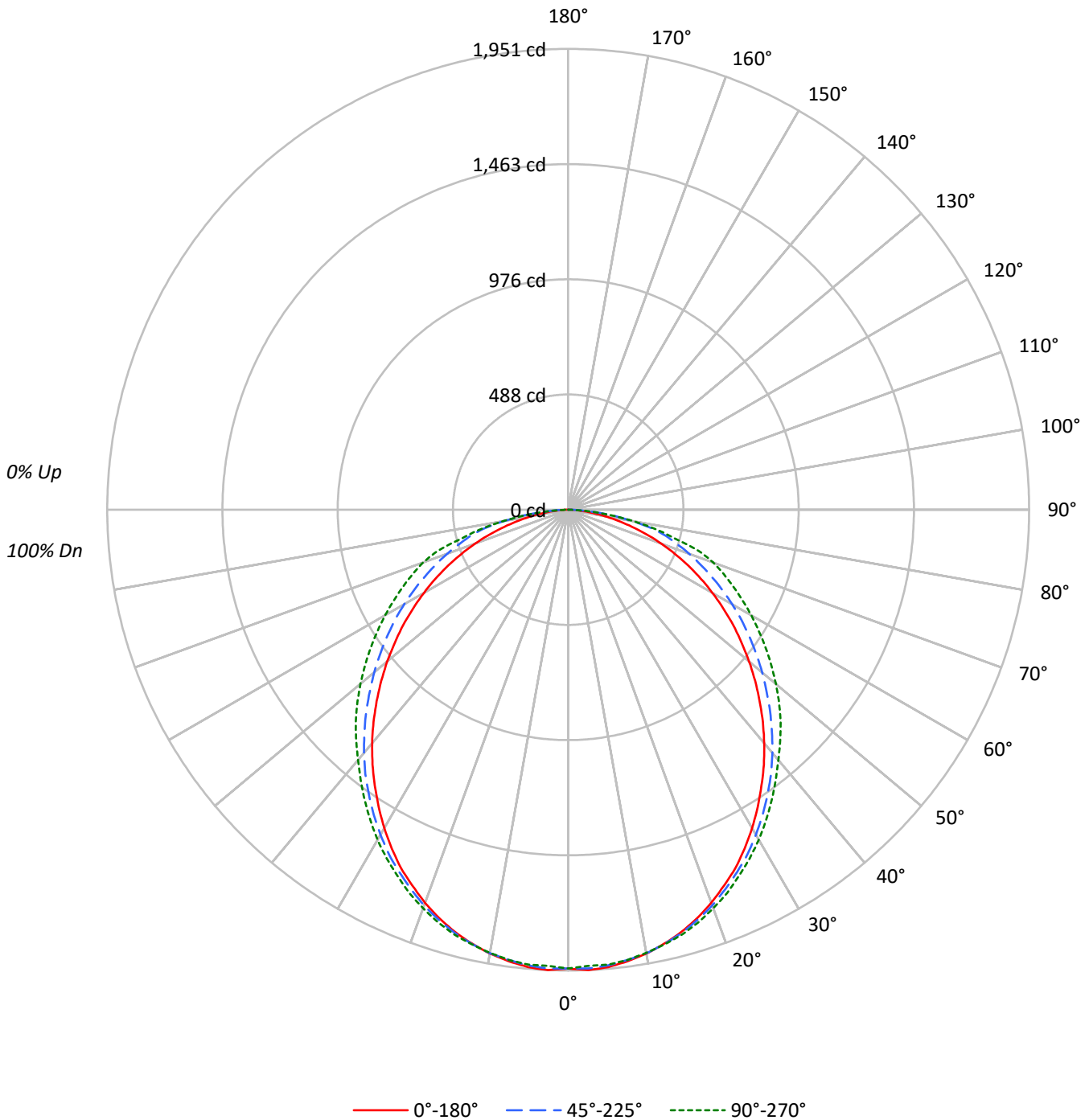
Input Watts (W): 60  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	58	52	62	56	52	50
5	76	63	53	47	73	61	53	47	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

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

	0°	45°	90°
0°	2613	2613	2613
5°	2626	2616	2611
10°	2607	2605	2602
15°	2579	2584	2594
20°	2536	2554	2571
25°	2486	2512	2539
30°	2418	2468	2507
35°	2343	2416	2466
40°	2267	2361	2430
45°	2181	2300	2418
50°	2093	2242	2403
55°	2002	2194	2395
60°	1897	2157	2407
65°	1784	2131	2455
70°	1643	2142	2570
75°	1457	2218	2394
80°	1217	2102	2158
85°	909	1681	1544



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	183.6	3.4
10°-20°	522.2	9.7
20°-30°	778.3	14.5
30°-40°	916.2	17.1
40°-50°	931.0	17.4
50°-60°	837.0	15.6
60°-70°	661.3	12.3
70°-80°	419.5	7.8
80°-90°	115.8	2.2
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°	1484.2	27.7
0°-40°	2400.3	44.7
0°-60°	4168.4	77.7
0°-90°	5365.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5365.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1942	1942	1942	1942	1942	
5°	1944	1928	1937	1933	1933	184
15°	1851	1842	1855	1860	1862	521
25°	1674	1673	1692	1703	1710	770
35°	1426	1435	1471	1487	1501	892
45°	1146	1162	1208	1244	1271	884
55°	853	875	935	996	1021	762
65°	560	589	669	743	771	555
75°	280	328	427	464	461	298
85°	59	102	109	100	100	72
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1942.2	1942.2	1942.2	1942.2	1942.2
2.5°	1951.2	1936.9	1944.0	1940.4	1933.3
5°	1944.0	1927.9	1936.9	1933.3	1933.3
7.5°	1927.9	1915.5	1922.6	1920.8	1922.6
10°	1908.3	1895.8	1906.5	1906.5	1904.7
12.5°	1881.5	1870.8	1883.3	1883.3	1885.1
15°	1851.2	1842.3	1854.8	1860.1	1861.9
17.5°	1813.7	1804.8	1820.8	1826.2	1831.6
20°	1770.9	1767.3	1783.4	1788.7	1795.8
22.5°	1722.7	1722.7	1738.7	1745.9	1756.6
25°	1674.5	1672.7	1692.3	1703.0	1710.2
27.5°	1617.3	1619.1	1644.1	1654.8	1663.7
30°	1556.6	1560.2	1588.8	1601.3	1613.8
32.5°	1492.4	1499.5	1531.6	1545.9	1558.4
35°	1426.3	1435.2	1471.0	1487.0	1501.3
37.5°	1360.3	1372.8	1410.3	1426.3	1442.4
40°	1290.7	1301.4	1344.2	1363.8	1383.5
42.5°	1219.2	1233.5	1276.4	1304.9	1328.1
45°	1146.1	1162.1	1208.5	1244.2	1271.0
47.5°	1072.9	1094.3	1138.9	1187.1	1210.3
50°	999.7	1021.1	1071.1	1124.6	1147.8
52.5°	924.7	946.1	1003.2	1058.6	1083.6
55°	853.3	874.7	935.4	996.1	1021.1
57.5°	778.3	801.5	869.4	931.8	956.8
60°	705.1	728.3	801.5	867.6	894.4
62.5°	633.7	658.7	735.5	805.1	831.9
65°	560.5	589.1	669.4	742.6	771.2
67.5°	489.1	521.3	605.2	681.9	712.3
70°	417.7	455.2	544.5	623.0	653.4
72.5°	348.1	389.2	483.8	562.3	578.4
75°	280.3	328.5	426.6	464.1	460.6
77.5°	216.0	269.6	362.4	369.5	380.2
80°	157.1	216.0	271.3	285.6	278.5
82.5°	103.5	162.4	194.6	187.4	185.7
85°	58.9	101.8	108.9	100.0	100.0
87.5°	25.0	41.1	35.7	26.8	25.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)