

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: P229989

Luminaire Tested: **24CZ-LD5-70-UNV-L935-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P229989
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25697)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ-LD5-70-UNV-L935-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH RIBBED LENS
Light Source: (168) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6099.0 lumens
Efficiency: N/A
Efficacy: 95.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

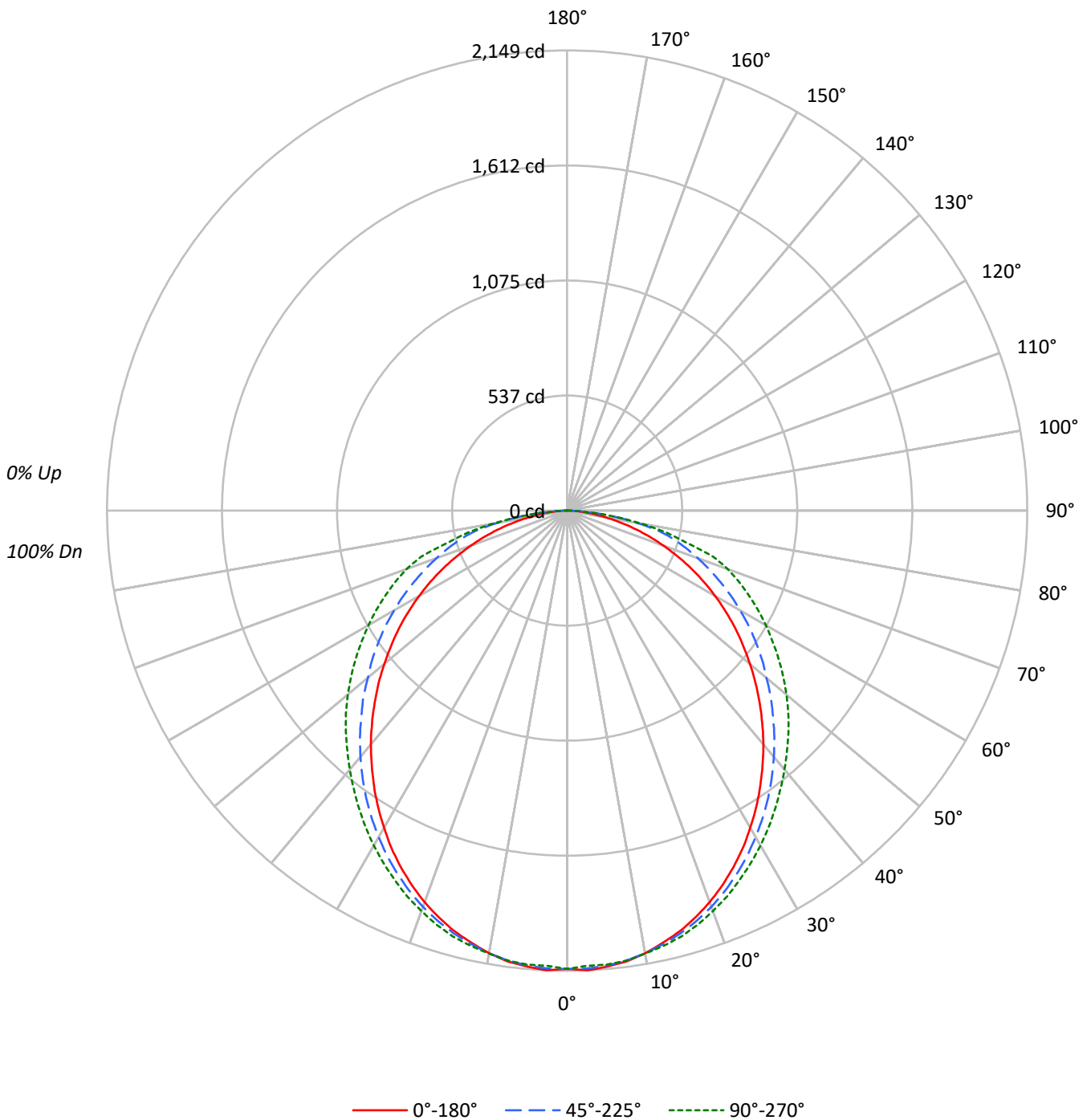
Input Watts (W): 64.22
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	60	57
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	35	32
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	40	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	38	31	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2880	2880	2880
5°	2888	2880	2874
10°	2867	2867	2870
15°	2833	2848	2868
20°	2787	2820	2850
25°	2728	2781	2827
30°	2657	2735	2806
35°	2583	2689	2785
40°	2505	2637	2773
45°	2420	2587	2782
50°	2334	2544	2798
55°	2248	2528	2826
60°	2147	2512	2883
65°	2034	2513	2978
70°	1881	2555	3138
75°	1683	2671	2986
80°	1408	2556	2734
85°	1064	1967	1870



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	202.3	3.3
10°-20°	575.7	9.4
20°-30°	860.6	14.1
30°-40°	1020.9	16.7
40°-50°	1050.8	17.2
50°-60°	964.0	15.8
60°-70°	779.4	12.8
70°-80°	505.8	8.3
80°-90°	139.5	2.3
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°	1638.5	26.9
0°-40°	2659.5	43.6
0°-60°	4674.2	76.6
0°-90°	6099.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6099.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2140	2140	2140	2140	2140	
5°	2138	2124	2132	2130	2128	203
15°	2034	2026	2044	2053	2059	573
25°	1838	1840	1873	1890	1904	846
35°	1572	1585	1637	1673	1696	983
45°	1272	1293	1359	1424	1462	981
55°	958	988	1078	1165	1205	856
65°	639	677	789	894	936	631
75°	324	384	514	574	574	344
85°	69	117	127	123	121	84
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2140.4	2140.4	2140.4	2140.4	2140.4
2.5°	2148.8	2132.1	2140.4	2138.3	2127.9
5°	2138.3	2123.7	2132.1	2130.0	2127.9
7.5°	2123.7	2109.1	2119.5	2117.5	2119.5
10°	2098.7	2086.1	2098.7	2100.8	2100.8
12.5°	2067.3	2056.9	2073.6	2077.8	2082.0
15°	2033.9	2025.6	2044.4	2052.7	2059.0
17.5°	1992.2	1985.9	2008.9	2019.3	2027.7
20°	1946.2	1944.1	1969.2	1979.6	1990.1
22.5°	1894.0	1894.0	1923.3	1935.8	1950.4
25°	1837.6	1839.7	1873.1	1889.8	1904.5
27.5°	1777.1	1779.2	1818.8	1839.7	1856.4
30°	1710.3	1718.6	1760.4	1787.5	1806.3
32.5°	1643.4	1653.9	1699.8	1731.1	1752.0
35°	1572.4	1585.0	1637.2	1672.7	1695.6
37.5°	1499.3	1514.0	1570.3	1610.0	1637.2
40°	1426.3	1443.0	1501.4	1547.4	1578.7
42.5°	1349.0	1367.8	1432.5	1486.8	1520.2
45°	1271.7	1292.6	1359.4	1424.2	1461.8
47.5°	1194.5	1219.5	1290.5	1361.5	1401.2
50°	1115.1	1140.2	1215.3	1296.8	1336.5
52.5°	1035.8	1065.0	1148.5	1232.1	1271.7
55°	958.5	987.7	1077.5	1165.2	1204.9
57.5°	879.1	908.4	1006.5	1098.4	1138.1
60°	797.7	831.1	933.4	1027.4	1071.3
62.5°	718.3	753.8	862.4	962.7	1004.4
65°	639.0	676.6	789.3	893.8	935.5
67.5°	557.6	601.4	718.3	824.8	868.7
70°	478.2	526.2	649.4	755.9	797.7
72.5°	400.9	453.1	580.5	689.1	714.2
75°	323.7	384.2	513.7	574.3	574.3
77.5°	250.6	317.4	438.5	461.5	474.0
80°	181.7	254.8	329.9	357.1	352.9
82.5°	121.1	194.2	236.0	236.0	229.7
85°	68.9	116.9	127.4	123.2	121.1
87.5°	29.2	43.9	39.7	31.3	27.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)