

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: P230026

Luminaire Tested: **24CZ-LD5-65SE-UNV-L940-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P230026  
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-LD5-65SE-UNV-L940-CD1-U  
Description: CRUZE 2x4 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: 5768.0 lumens  
Efficiency: N/A  
Efficacy: 96.1 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

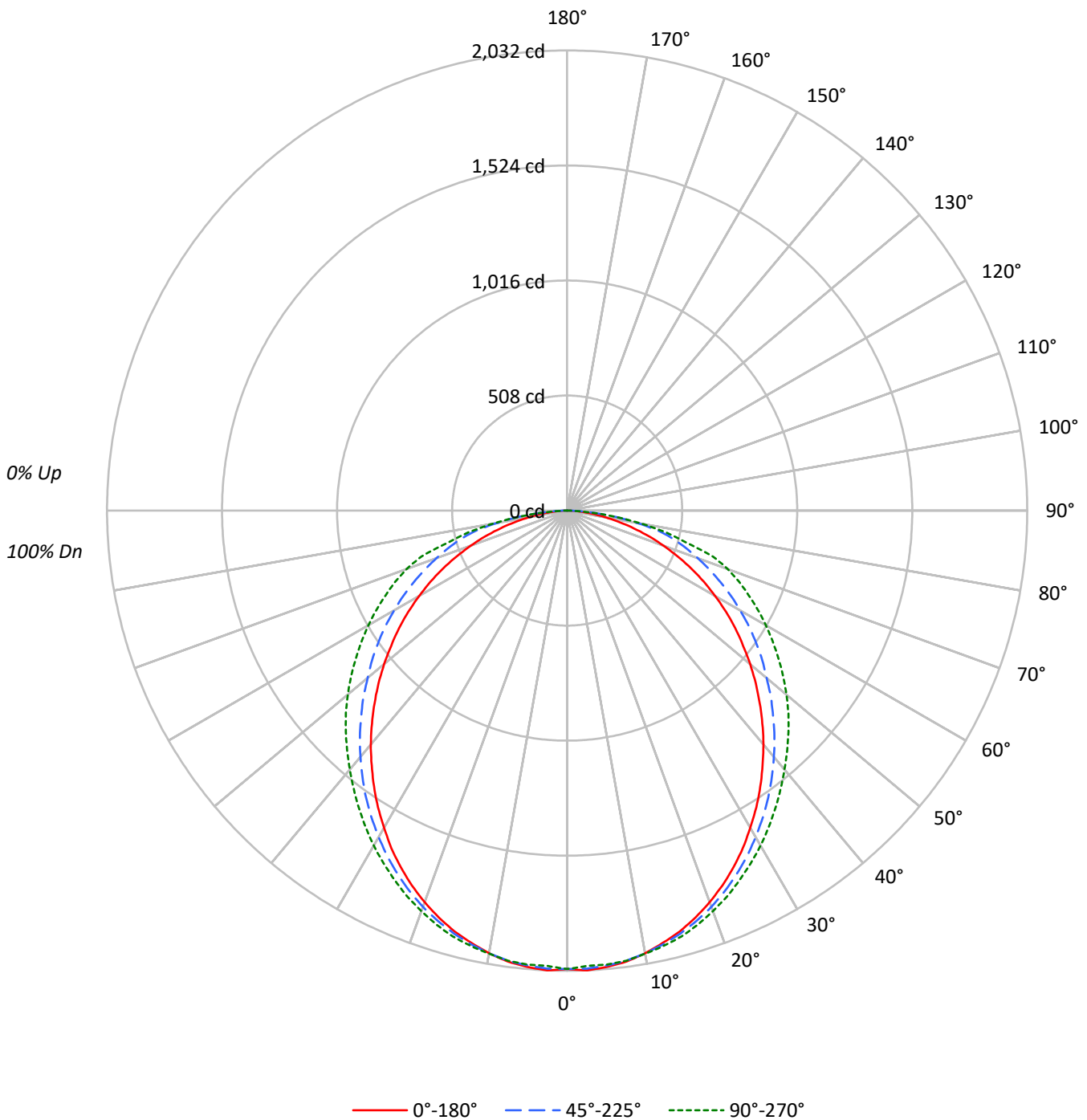
Input Watts (W): 60  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2724	2724	2724
5°	2731	2723	2718
10°	2712	2712	2714
15°	2679	2693	2712
20°	2635	2667	2695
25°	2580	2630	2674
30°	2513	2586	2654
35°	2443	2543	2634
40°	2369	2494	2622
45°	2289	2446	2630
50°	2207	2406	2646
55°	2126	2390	2673
60°	2030	2376	2726
65°	1924	2377	2817
70°	1779	2416	2968
75°	1591	2525	2823
80°	1331	2417	2586
85°	1007	1860	1768



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	191.3	3.3
10°-20°	544.4	9.4
20°-30°	813.9	14.1
30°-40°	965.5	16.7
40°-50°	993.8	17.2
50°-60°	911.7	15.8
60°-70°	737.1	12.8
70°-80°	478.4	8.3
80°-90°	131.9	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°	1549.6	26.9
0°-40°	2515.1	43.6
0°-60°	4420.6	76.6
0°-90°	5768.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5768.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2024	2024	2024	2024	2024	
5°	2022	2008	2016	2014	2012	192
15°	1924	1916	1933	1941	1947	542
25°	1738	1740	1772	1787	1801	800
35°	1487	1499	1548	1582	1604	930
45°	1203	1222	1286	1347	1382	928
55°	906	934	1019	1102	1140	810
65°	604	640	746	845	885	597
75°	306	363	486	543	543	325
85°	65	111	120	116	114	80
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2024.3	2024.3	2024.3	2024.3	2024.3
2.5°	2032.2	2016.4	2024.3	2022.3	2012.4
5°	2022.3	2008.5	2016.4	2014.4	2012.4
7.5°	2008.5	1994.6	2004.5	2002.5	2004.5
10°	1984.8	1972.9	1984.8	1986.7	1986.7
12.5°	1955.1	1945.3	1961.1	1965.0	1969.0
15°	1923.5	1915.6	1933.4	1941.3	1947.2
17.5°	1884.1	1878.1	1899.8	1909.7	1917.6
20°	1840.6	1838.6	1862.3	1872.2	1882.1
22.5°	1791.2	1791.2	1818.9	1830.7	1844.6
25°	1737.9	1739.9	1771.5	1787.3	1801.1
27.5°	1680.6	1682.6	1720.1	1739.9	1755.7
30°	1617.4	1625.3	1664.8	1690.5	1708.3
32.5°	1554.2	1564.1	1607.6	1637.2	1656.9
35°	1487.1	1498.9	1548.3	1581.9	1603.6
37.5°	1418.0	1431.8	1485.1	1522.6	1548.3
40°	1348.9	1364.7	1420.0	1463.4	1493.0
42.5°	1275.8	1293.6	1354.8	1406.1	1437.7
45°	1202.7	1222.5	1285.7	1346.9	1382.4
47.5°	1129.6	1153.3	1220.5	1287.6	1325.2
50°	1054.6	1078.3	1149.4	1226.4	1263.9
52.5°	979.5	1007.2	1086.2	1165.2	1202.7
55°	906.5	934.1	1019.0	1102.0	1139.5
57.5°	831.4	859.1	951.9	1038.8	1076.3
60°	754.4	786.0	882.8	971.6	1013.1
62.5°	679.4	712.9	815.6	910.4	949.9
65°	604.3	639.9	746.5	845.3	884.8
67.5°	527.3	568.8	679.4	780.1	821.6
70°	452.3	497.7	614.2	714.9	754.4
72.5°	379.2	428.6	549.0	651.7	675.4
75°	306.1	363.4	485.8	543.1	543.1
77.5°	237.0	300.2	414.7	436.5	448.3
80°	171.8	240.9	312.0	337.7	333.8
82.5°	114.5	183.7	223.2	223.2	217.2
85°	65.2	110.6	120.5	116.5	114.5
87.5°	27.6	41.5	37.5	29.6	25.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)