

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: P230423

Luminaire Tested: **24CZ-LD5-70-SQP-UNV-L950-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P230423  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25695)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ-LD5-70-SQP-UNV-L950-CD1-U  
Description: CRUZE 2x4 LED TROFFER  
WITH SQP LENS  
Light Source: (168) 5000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4697.4 lumens  
Efficiency: N/A  
Efficacy: 73.1 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.31 / 1.42  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

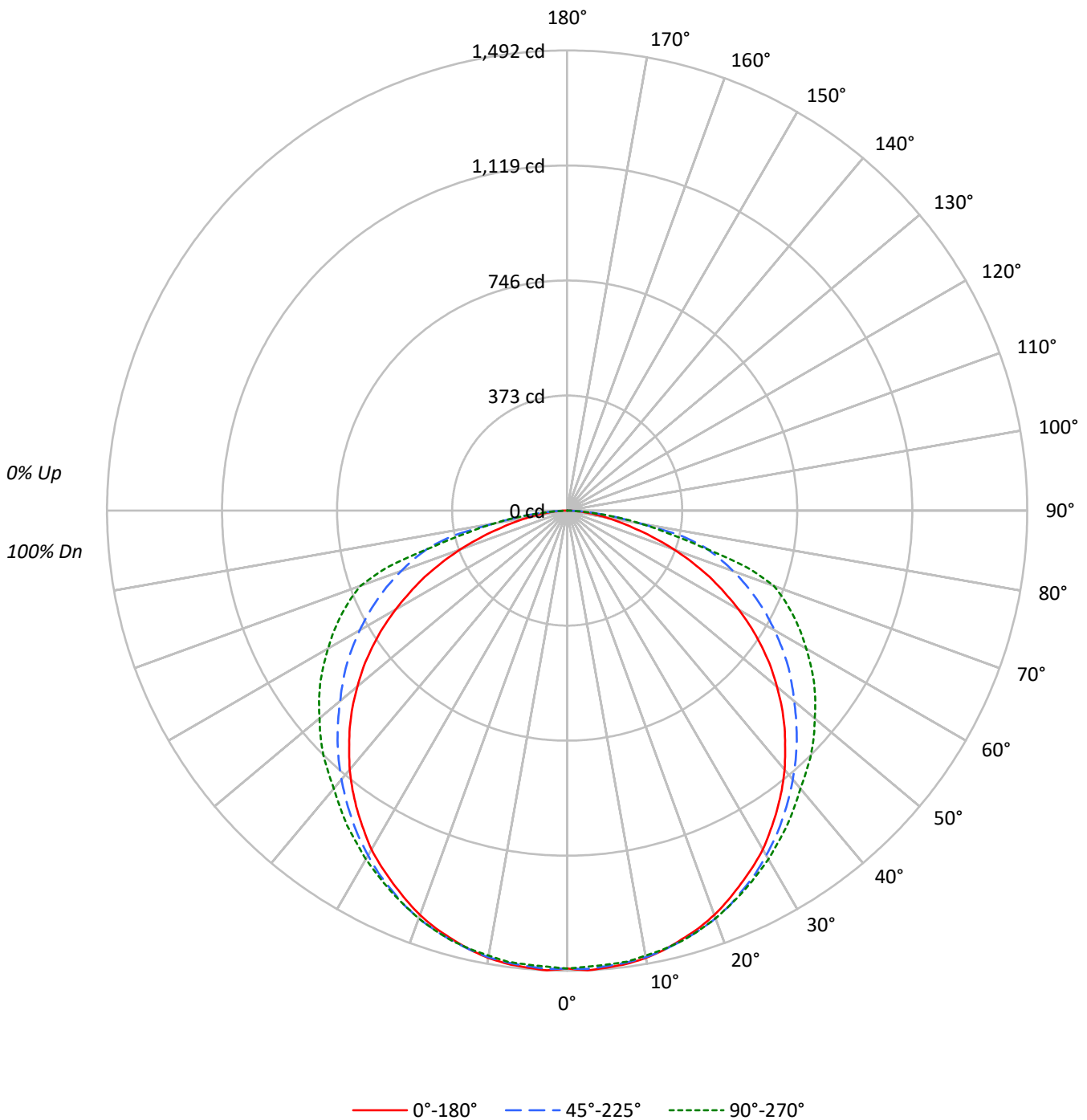
Input Watts (W): 64.22  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	98	94	105	101	97	93	96	93	90		92	90	87		89	87	84	82
2	98	89	82	76	95	87	80	75	83	78	73		80	75	71		77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	60		70	64	59		67	63	58	56
4	81	68	59	52	79	67	58	52	64	57	51		62	56	50		60	54	50	47
5	74	61	51	45	72	60	51	44	57	50	44		55	49	43		54	48	43	41
6	68	55	45	39	66	54	45	38	52	44	38		50	43	38		48	42	37	35
7	63	49	40	34	62	49	40	34	47	39	34		45	39	33		44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30		42	35	30		40	34	29	28
9	55	41	33	27	54	41	33	27	39	32	27		38	32	27		37	31	27	25
10	51	38	30	24	50	37	30	24	36	29	24		35	29	24		35	28	24	22

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

	0°	45°	90°
0°	1998	1998	1998
5°	2009	2002	1996
10°	2012	2009	2002
15°	2004	2011	2011
20°	1998	2015	2015
25°	1981	2010	2017
30°	1972	2005	2028
35°	1949	2001	2044
40°	1926	1999	2067
45°	1897	2004	2128
50°	1859	2011	2194
55°	1810	2049	2294
60°	1730	2089	2409
65°	1622	2155	2580
70°	1451	2253	2806
75°	1198	2409	2321
80°	978	1861	1880
85°	787	1237	1161



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	141.0	3.0
10°-20°	407.0	8.7
20°-30°	622.0	13.2
30°-40°	760.7	16.2
40°-50°	814.0	17.3
50°-60°	779.4	16.6
60°-70°	659.3	14.0
70°-80°	417.9	8.9
80°-90°	96.2	2.0
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°	1170.0	24.9
0°-40°	1930.7	41.1
0°-60°	3524.0	75.0
0°-90°	4697.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4697.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1485	1485	1485	1485	1485	
5°	1487	1480	1482	1480	1478	142
15°	1439	1436	1444	1444	1444	406
25°	1334	1334	1354	1359	1359	616
35°	1186	1194	1218	1235	1245	742
45°	997	1014	1053	1097	1119	768
55°	772	796	874	946	978	688
65°	510	558	677	769	810	502
75°	230	325	463	461	446	251
85°	51	78	80	73	75	61
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1484.9	1484.9	1484.9	1484.9	1484.9
2.5°	1492.2	1484.9	1487.4	1484.9	1480.1
5°	1487.4	1480.1	1482.5	1480.1	1477.7
7.5°	1482.5	1475.2	1477.7	1475.2	1475.2
10°	1472.8	1465.5	1470.4	1468.0	1465.5
12.5°	1458.3	1453.4	1458.3	1455.8	1455.8
15°	1438.8	1436.4	1443.7	1443.7	1443.7
17.5°	1419.4	1417.0	1426.7	1426.7	1426.7
20°	1395.2	1392.7	1407.3	1407.3	1407.3
22.5°	1366.1	1363.6	1383.0	1383.0	1383.0
25°	1334.5	1334.5	1353.9	1358.8	1358.8
27.5°	1303.0	1303.0	1324.8	1332.1	1332.1
30°	1269.0	1269.0	1290.8	1300.5	1305.4
32.5°	1227.8	1232.6	1256.9	1269.0	1273.9
35°	1186.5	1193.8	1218.0	1235.0	1244.7
37.5°	1142.8	1150.1	1179.2	1198.6	1210.8
40°	1096.7	1106.4	1138.0	1162.2	1176.8
42.5°	1045.8	1060.3	1096.7	1128.3	1147.7
45°	997.2	1014.2	1053.1	1096.7	1118.6
47.5°	943.9	963.3	1007.0	1062.8	1084.6
50°	888.1	907.5	960.8	1023.9	1048.2
52.5°	832.3	854.1	917.2	985.1	1014.2
55°	771.6	795.9	873.5	946.3	977.8
57.5°	708.5	737.6	825.0	902.6	936.6
60°	643.0	679.4	776.4	858.9	895.3
62.5°	575.1	618.7	727.9	815.3	854.1
65°	509.5	558.1	677.0	769.2	810.4
67.5°	439.2	499.8	626.0	725.5	764.3
70°	368.8	439.2	572.6	674.5	713.4
72.5°	298.4	383.4	519.2	611.4	611.4
75°	230.5	325.1	463.4	461.0	446.5
77.5°	174.7	271.8	380.9	325.1	327.6
80°	126.2	218.4	240.2	240.2	242.6
82.5°	84.9	167.4	155.3	152.9	157.7
85°	51.0	77.6	80.1	72.8	75.2
87.5°	24.3	26.7	21.8	14.6	14.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)