

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: P390749

Luminaire Tested: **22CZ2-85VHE-HRP-UNV-L940-CD1-U**

Issue Date: 2/28/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

**Test Information**

Test Method: LM-79-08  
Report Number: P390749  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-85VHE-HRP-UNV-L940-CD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND HRP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6246.7 lumens  
Efficiency: N/A  
Efficacy: 98.2 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

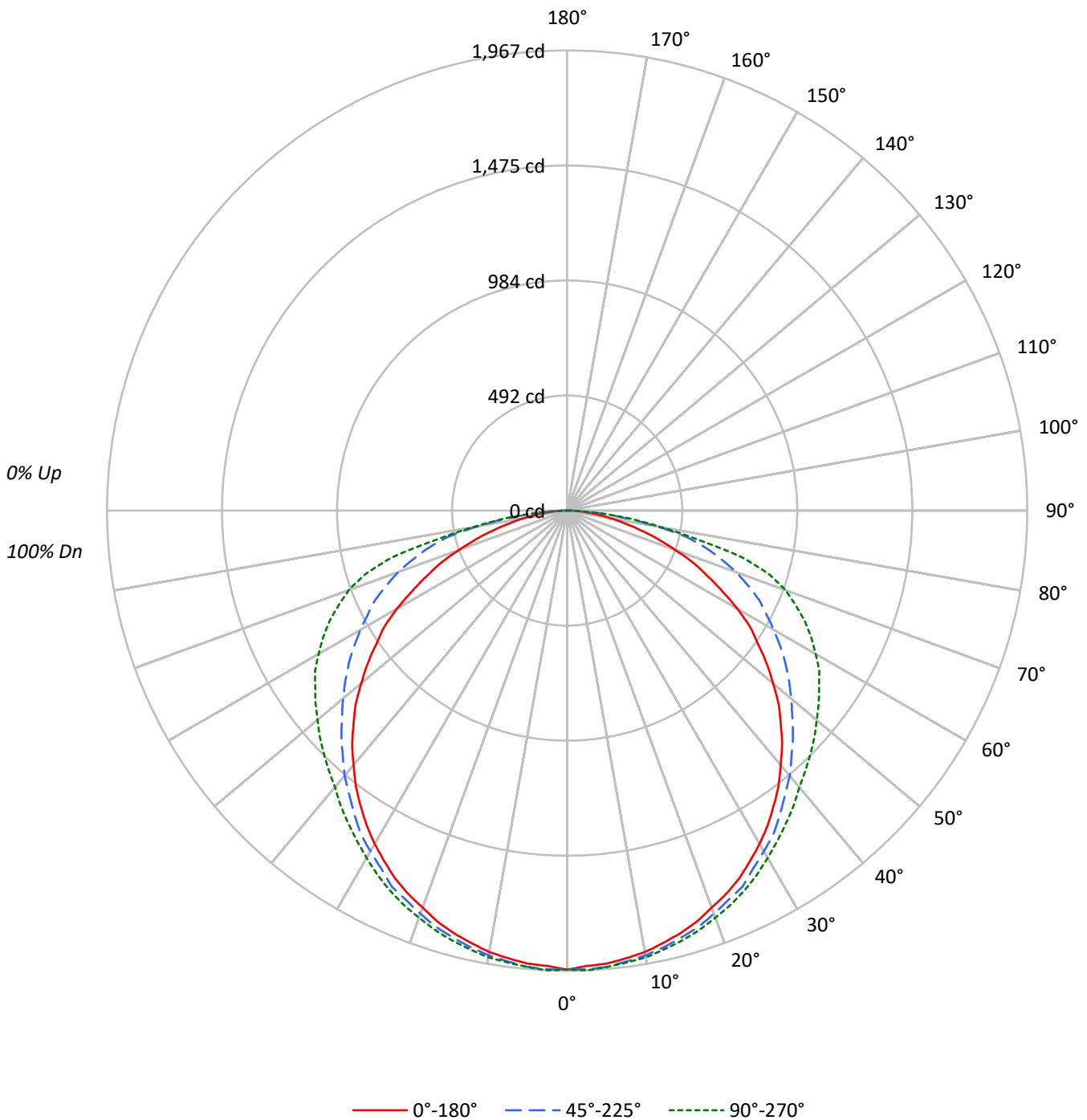
Input Watts (W): 63.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	100	96	92	96	92	89		92	89	86		88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72		80	75	71		76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60		70	64	59		67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50		61	55	50		59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43		55	48	43		53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38		50	43	37		48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33		45	38	33		44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29		41	34	29		40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26		38	31	26		37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24		35	29	24		34	28	24	22

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

	0°	45°	90°
0°	5280	5280	5280
5°	5251	5288	5288
10°	5236	5274	5299
15°	5210	5262	5300
20°	5172	5251	5303
25°	5157	5267	5321
30°	5112	5226	5326
35°	5057	5208	5359
40°	4988	5198	5424
45°	4914	5194	5596
50°	4809	5233	5829
55°	4678	5347	6166
60°	4526	5491	6603
65°	4213	5764	7140
70°	3869	6038	7810
75°	3393	6355	8074
80°	2920	6053	6338
85°	2553	4400	4823



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	185.6	3.0
10°-20°	532.9	8.5
20°-30°	813.1	13.0
30°-40°	992.8	15.9
40°-50°	1061.5	17.0
50°-60°	1024.6	16.4
60°-70°	882.0	14.1
70°-80°	596.7	9.6
80°-90°	157.5	2.5
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°	1531.6	24.5
0°-40°	2524.4	40.4
0°-60°	4610.5	73.8
0°-90°	6246.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6246.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1962	1962	1962	1962	1962	
5°	1944	1948	1958	1958	1958	185
15°	1870	1875	1889	1898	1902	528
25°	1737	1746	1774	1783	1792	799
35°	1539	1553	1585	1618	1631	963
45°	1291	1314	1365	1434	1470	997
55°	997	1029	1140	1254	1314	894
65°	662	726	905	1048	1121	658
75°	326	432	611	735	777	350
85°	83	115	142	147	156	93
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1962.2	1962.2	1962.2	1962.2	1962.2
2.5°	1948.4	1953.0	1962.2	1962.2	1966.8
5°	1943.8	1948.4	1957.6	1957.6	1957.6
7.5°	1930.0	1934.6	1943.8	1948.4	1948.4
10°	1916.2	1920.8	1930.0	1934.6	1939.2
12.5°	1893.3	1897.9	1911.6	1920.8	1920.8
15°	1870.3	1874.9	1888.7	1897.9	1902.5
17.5°	1842.7	1851.9	1865.7	1874.9	1879.5
20°	1806.0	1815.1	1833.5	1847.3	1851.9
22.5°	1773.8	1783.0	1801.4	1815.1	1824.3
25°	1737.0	1746.2	1773.8	1783.0	1792.2
27.5°	1691.1	1700.3	1723.2	1741.6	1755.4
30°	1645.1	1654.3	1681.9	1704.9	1714.1
32.5°	1594.6	1608.4	1640.5	1658.9	1672.7
35°	1539.4	1553.2	1585.4	1617.5	1631.3
37.5°	1484.3	1498.1	1530.2	1571.6	1590.0
40°	1420.0	1438.3	1479.7	1534.8	1544.0
42.5°	1360.2	1383.2	1420.0	1484.3	1507.3
45°	1291.3	1314.3	1364.8	1433.7	1470.5
47.5°	1226.9	1249.9	1305.1	1387.8	1433.7
50°	1148.8	1181.0	1249.9	1346.4	1392.4
52.5°	1075.3	1102.9	1194.8	1300.5	1355.6
55°	997.2	1029.3	1139.6	1254.5	1314.3
57.5°	928.3	955.8	1079.9	1208.6	1277.5
60°	840.9	877.7	1020.2	1158.0	1226.9
62.5°	749.0	804.2	960.4	1102.9	1176.4
65°	661.7	726.1	905.3	1047.7	1121.3
67.5°	583.6	652.5	836.3	988.0	1056.9
70°	491.7	579.0	767.4	914.5	992.6
72.5°	409.0	505.5	689.3	836.3	905.3
75°	326.3	432.0	611.2	735.2	776.6
77.5°	252.7	353.8	523.9	560.6	565.2
80°	188.4	280.3	390.6	395.2	409.0
82.5°	128.7	197.6	252.7	275.7	280.3
85°	82.7	114.9	142.5	147.0	156.2
87.5°	36.8	41.4	50.5	46.0	46.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)