

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: P390724

Luminaire Tested: **22CZ2-80VHE-RDP-UNV-L940-CD1-SWPD1-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: P390724  
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: 22CZ2-80VHE-RDP-UNV-L940-CD1-SWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RDP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4591.4 lumens  
Efficiency: N/A  
Efficacy: 77.7 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

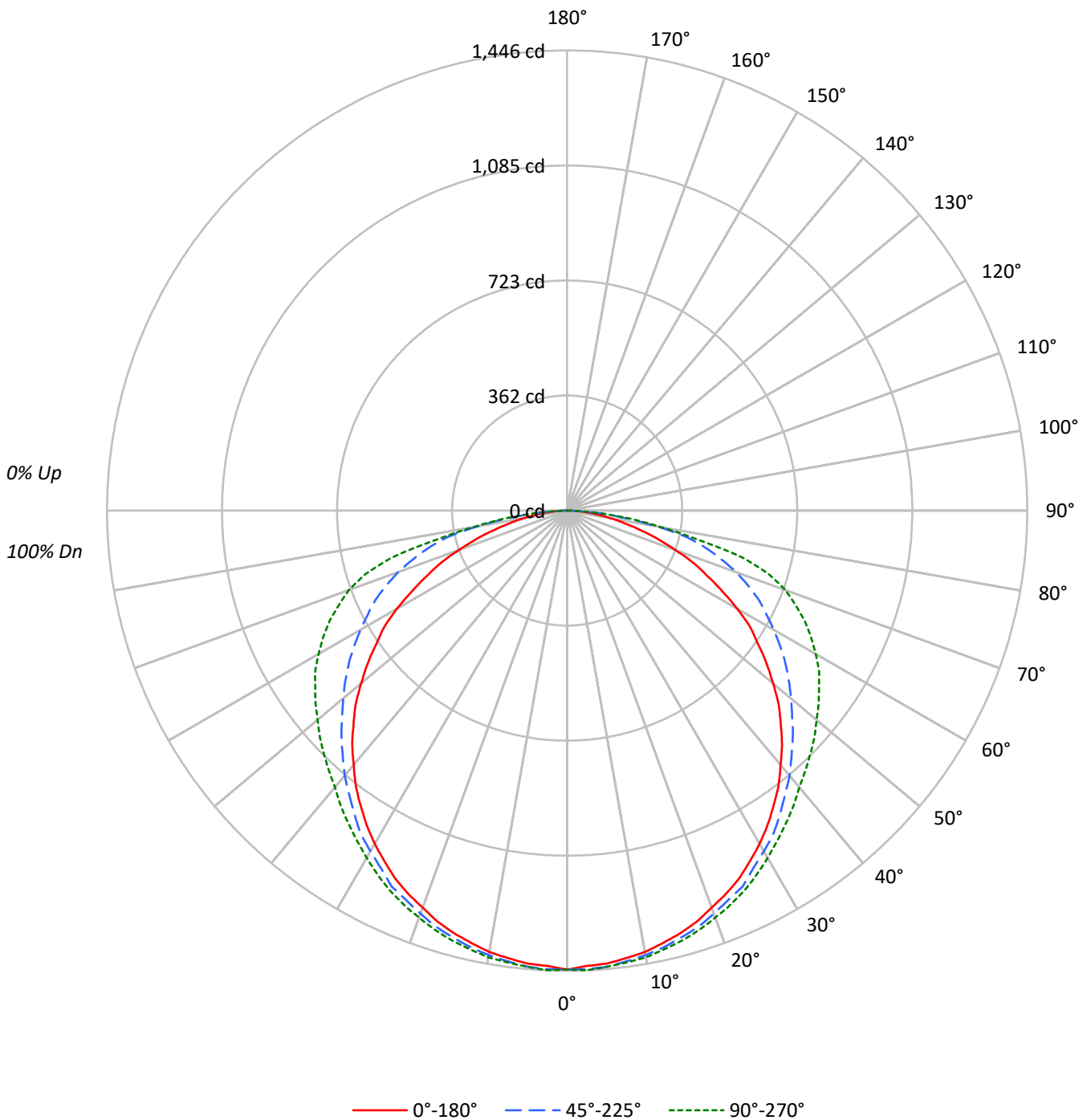
Input Watts (W): 59.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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					100			
1	108	103	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	82					82			
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67					67			
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55					55			
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47					47			
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40					40			
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35					35			
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31					31			
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27					27			
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24					24			
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22					22			

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

	0°	45°	90°
0°	3881	3881	3881
5°	3859	3887	3887
10°	3849	3876	3895
15°	3830	3867	3896
20°	3801	3859	3898
25°	3791	3871	3911
30°	3757	3841	3915
35°	3717	3828	3939
40°	3666	3821	3987
45°	3612	3817	4113
50°	3535	3846	4284
55°	3438	3930	4532
60°	3327	4035	4853
65°	3097	4237	5247
70°	2843	4438	5740
75°	2493	4670	5935
80°	2146	4449	4658
85°	1877	3233	3545



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	136.4	3.0
10°-20°	391.7	8.5
20°-30°	597.6	13.0
30°-40°	729.7	15.9
40°-50°	780.2	17.0
50°-60°	753.1	16.4
60°-70°	648.3	14.1
70°-80°	438.6	9.6
80°-90°	115.7	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°	1125.8	24.5
0°-40°	1855.5	40.4
0°-60°	3388.8	73.8
0°-90°	4591.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4591.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1442	1442	1442	1442	1442	
5°	1429	1432	1439	1439	1439	136
15°	1375	1378	1388	1395	1398	388
25°	1277	1284	1304	1310	1317	588
35°	1132	1142	1165	1189	1199	708
45°	949	966	1003	1054	1081	733
55°	733	757	838	922	966	657
65°	486	534	665	770	824	484
75°	240	318	449	540	571	257
85°	61	84	105	108	115	68
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1442.2	1442.2	1442.2	1442.2	1442.2
2.5°	1432.1	1435.5	1442.2	1442.2	1445.6
5°	1428.7	1432.1	1438.9	1438.9	1438.9
7.5°	1418.6	1422.0	1428.7	1432.1	1432.1
10°	1408.5	1411.8	1418.6	1422.0	1425.4
12.5°	1391.6	1395.0	1405.1	1411.8	1411.8
15°	1374.7	1378.1	1388.2	1395.0	1398.3
17.5°	1354.4	1361.2	1371.3	1378.1	1381.4
20°	1327.4	1334.2	1347.7	1357.8	1361.2
22.5°	1303.8	1310.5	1324.0	1334.2	1340.9
25°	1276.7	1283.5	1303.8	1310.5	1317.3
27.5°	1243.0	1249.7	1266.6	1280.1	1290.2
30°	1209.2	1215.9	1236.2	1253.1	1259.8
32.5°	1172.0	1182.2	1205.8	1219.3	1229.4
35°	1131.5	1141.6	1165.3	1188.9	1199.1
37.5°	1091.0	1101.1	1124.7	1155.1	1168.7
40°	1043.7	1057.2	1087.6	1128.1	1134.9
42.5°	999.8	1016.7	1043.7	1091.0	1107.9
45°	949.1	966.0	1003.1	1053.8	1080.8
47.5°	901.8	918.7	959.2	1020.0	1053.8
50°	844.4	868.0	918.7	989.6	1023.4
52.5°	790.4	810.6	878.2	955.9	996.4
55°	732.9	756.6	837.6	922.1	966.0
57.5°	682.3	702.5	793.7	888.3	939.0
60°	618.1	645.1	749.8	851.2	901.8
62.5°	550.6	591.1	705.9	810.6	864.7
65°	486.4	533.7	665.4	770.1	824.1
67.5°	429.0	479.6	614.7	726.2	776.8
70°	361.4	425.6	564.1	672.1	729.6
72.5°	300.6	371.5	506.6	614.7	665.4
75°	239.8	317.5	449.2	540.4	570.8
77.5°	185.8	260.1	385.0	412.1	415.4
80°	138.5	206.0	287.1	290.5	300.6
82.5°	94.6	145.2	185.8	202.7	206.0
85°	60.8	84.4	104.7	108.1	114.8
87.5°	27.0	30.4	37.2	33.8	33.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)