

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: P475506

Luminaire Tested: **14CZ2-35-SQR-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475506
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-35-SQR-UNV-L840-CD1-U
Description: 1'X4' TROFFER LED MODULE, SQUARE LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

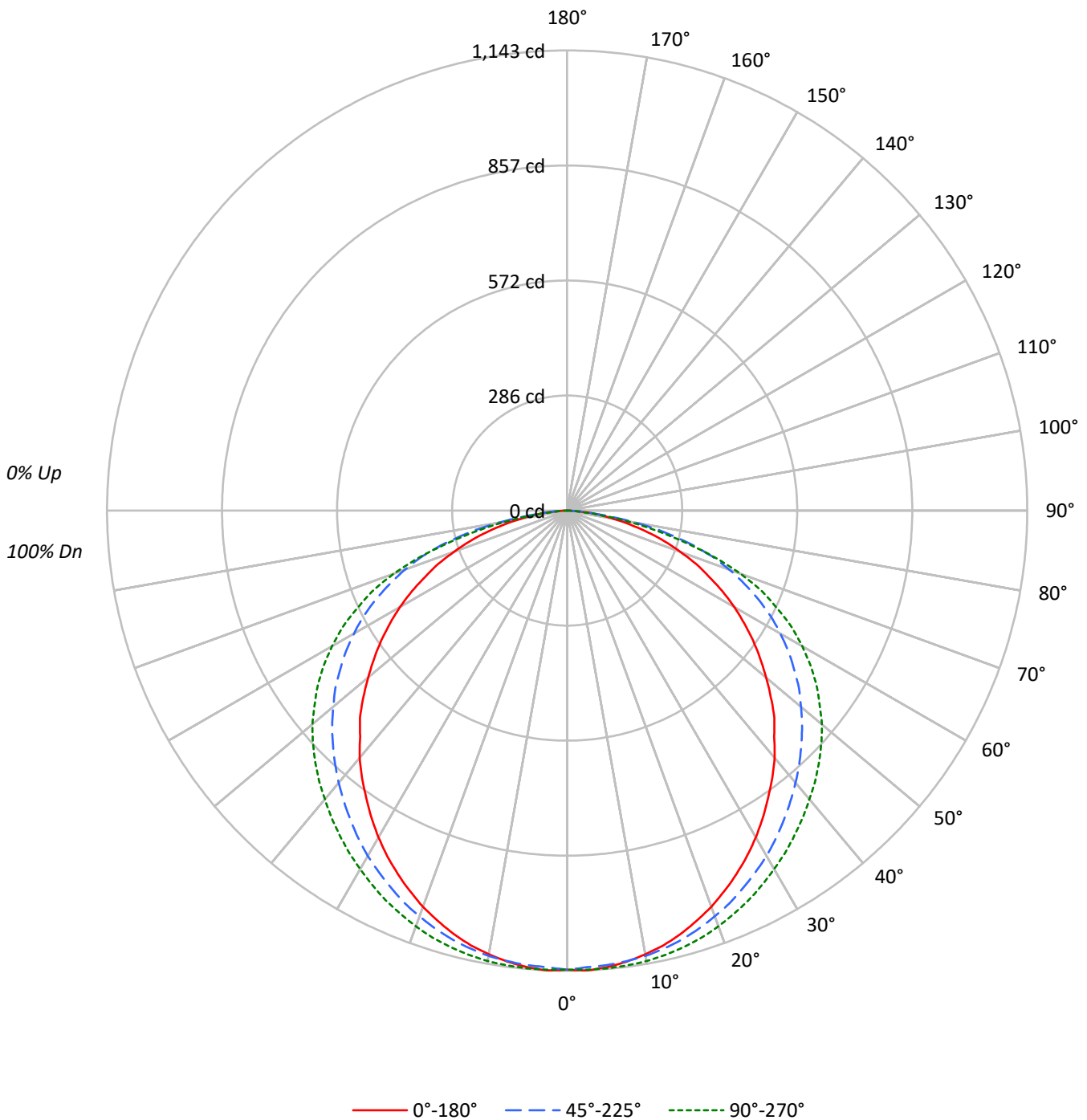
Lumens per Lamp: N/A
Luminaire Lumens: 3580.5 lumens
Efficiency: N/A
Efficacy: 125.6 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.34 / 1.43
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 28.5
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	89	82	76	95	87	81	75	84	78	74		81	76	72		77	74	70	68
3	89	78	69	63	86	76	68	62	73	67	61		70	65	60		68	63	59	57
4	81	69	60	53	79	67	59	52	65	57	51		62	56	51		60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44		56	49	44		54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38		50	43	38		49	43	38	36
7	63	50	41	34	62	49	40	34	47	39	34		46	39	34		44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30		42	35	30		41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27		39	32	27		37	31	27	25
10	52	38	30	25	50	38	30	25	37	29	24		36	29	24		35	29	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3069	3069	3069
5°	3075	3061	3083
10°	3058	3069	3105
15°	3033	3073	3126
20°	2999	3072	3147
25°	2957	3071	3170
30°	2912	3078	3195
35°	2859	3082	3235
40°	2816	3100	3288
45°	2770	3132	3366
50°	2700	3174	3458
55°	2647	3230	3548
60°	2579	3292	3629
65°	2478	3347	3669
70°	2346	3372	3603
75°	2144	3258	3111
80°	1802	2664	2318
85°	1312	1343	874



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.3	3.0
10°-20°	312.1	8.7
20°-30°	477.2	13.3
30°-40°	585.7	16.4
40°-50°	629.9	17.6
50°-60°	604.7	16.9
60°-70°	500.9	14.0
70°-80°	300.2	8.4
80°-90°	61.5	1.7
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°	897.6	25.1
0°-40°	1483.3	41.4
0°-60°	2717.9	75.9
0°-90°	3580.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3580.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1140	1140	1140	1140	1140	
5°	1138	1136	1133	1142	1141	108
15°	1089	1094	1103	1120	1122	307
25°	996	1012	1034	1062	1068	459
35°	870	900	938	975	985	545
45°	728	766	823	868	885	560
55°	564	618	688	739	756	504
65°	389	453	526	567	576	386
75°	206	269	313	306	299	218
85°	42	62	44	29	28	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1140.4	1140.4	1140.4	1140.4	1140.4
2.5°	1143.4	1140.4	1135.3	1143.4	1141.4
5°	1138.3	1136.3	1133.3	1142.4	1141.4
7.5°	1130.3	1130.3	1129.2	1140.4	1139.4
10°	1119.1	1121.2	1123.2	1136.3	1136.3
12.5°	1106.0	1108.0	1114.1	1129.2	1130.3
15°	1088.8	1093.9	1103.0	1120.1	1122.2
17.5°	1068.6	1076.7	1088.8	1109.0	1112.1
20°	1047.4	1056.5	1072.6	1094.9	1098.9
22.5°	1022.1	1035.2	1055.4	1078.7	1083.7
25°	995.8	1012.0	1034.2	1061.5	1067.6
27.5°	967.5	986.7	1013.0	1041.3	1048.4
30°	937.2	959.4	990.7	1021.1	1028.1
32.5°	904.8	931.1	965.5	998.8	1007.9
35°	870.4	899.8	938.2	974.6	984.7
37.5°	837.1	868.4	910.9	950.3	961.4
40°	801.7	835.1	882.6	924.0	936.1
42.5°	761.3	801.7	853.2	897.7	911.9
45°	727.9	766.3	822.9	868.4	884.6
47.5°	686.4	730.9	791.6	840.1	856.3
50°	645.0	695.5	758.2	808.8	826.0
52.5°	604.6	656.1	725.9	775.4	790.6
55°	564.1	617.7	688.5	739.0	756.2
57.5°	521.7	580.3	652.1	702.6	716.8
60°	479.2	537.8	611.6	660.2	674.3
62.5°	434.7	497.4	571.2	615.7	629.8
65°	389.2	452.9	525.7	567.1	576.2
67.5°	346.8	411.5	477.2	515.6	524.7
70°	298.2	367.0	428.6	457.0	458.0
72.5°	253.8	317.4	376.1	384.2	382.1
75°	206.2	268.9	313.4	306.3	299.2
77.5°	159.7	223.4	246.7	226.5	221.4
80°	116.3	173.9	171.9	152.7	149.6
82.5°	79.9	120.3	99.1	80.9	74.8
85°	42.5	61.7	43.5	29.3	28.3
87.5°	16.2	15.2	9.1	6.1	6.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)