

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: P474424

Luminaire Tested: **24CZ2-55HE-HRP-UNV-L835-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474424  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-55HE-HRP-UNV-L835-CD1-U  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS W/ HRP INSERT  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4635.5 lumens  
Efficiency: N/A  
Efficacy: 106.6 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

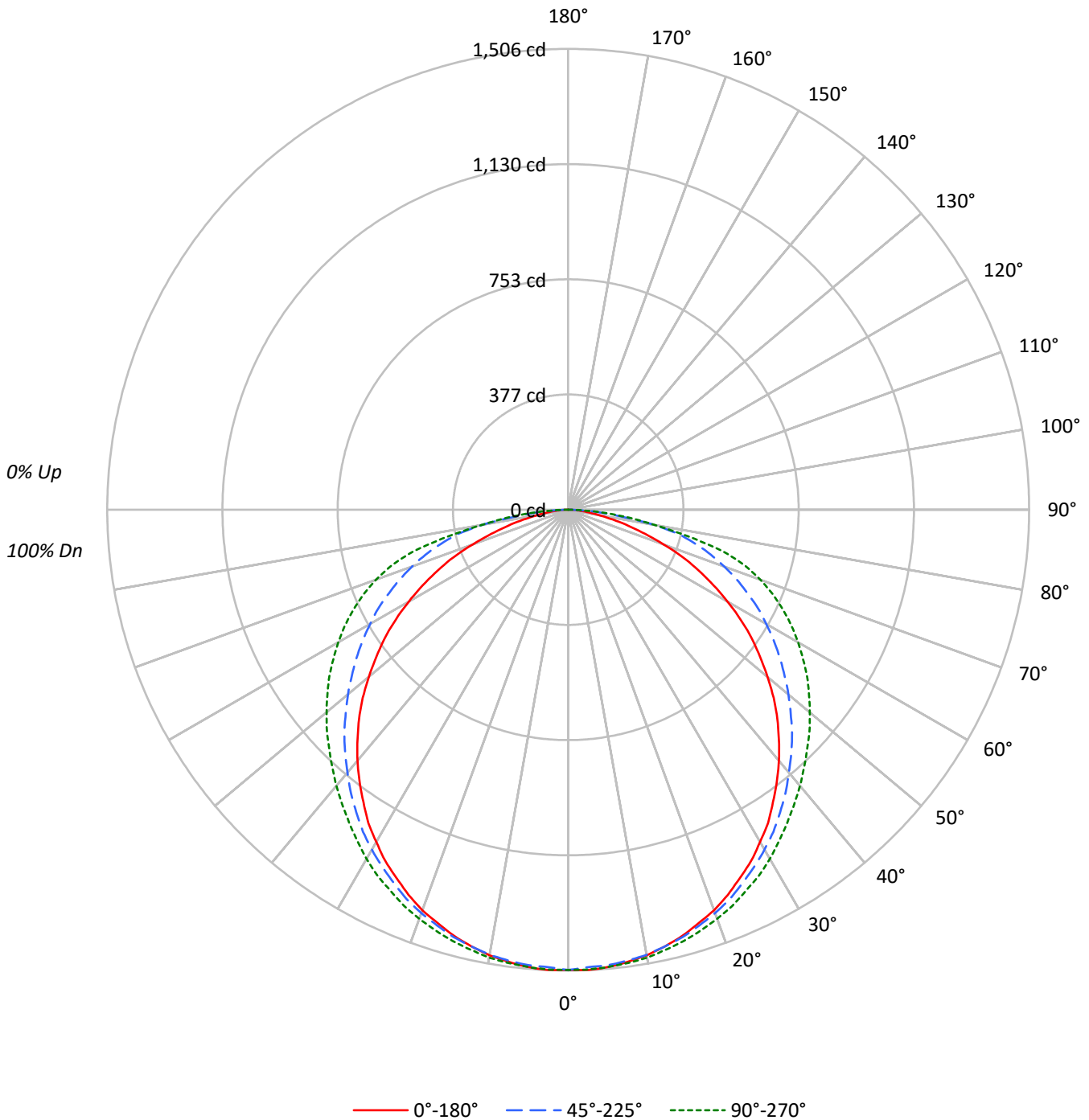
Input Watts (W): 43.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	50
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27
10	52	38	30	25	50	38	30	25	37	30	25	36	29	24	35	29	24

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

	0°	45°	90°
0°	2024	2024	2024
5°	2026	2018	2026
10°	2020	2018	2031
15°	2008	2014	2033
20°	1995	2009	2037
25°	1970	1999	2040
30°	1948	1993	2047
35°	1916	1983	2050
40°	1881	1970	2069
45°	1839	1968	2101
50°	1779	1966	2157
55°	1716	1980	2235
60°	1619	2010	2334
65°	1495	2058	2465
70°	1305	2130	2626
75°	1059	2240	2714
80°	783	2196	2196
85°	599	1618	1826



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	142.5	3.1
10°-20°	409.1	8.8
20°-30°	622.9	13.4
30°-40°	756.3	16.3
40°-50°	799.0	17.2
50°-60°	754.0	16.3
60°-70°	626.9	13.5
70°-80°	412.4	8.9
80°-90°	112.4	2.4
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°	1174.5	25.3
0°-40°	1930.7	41.7
0°-60°	3483.7	75.2
0°-90°	4635.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4635.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1504	1504	1504	1504	1504	
5°	1500	1500	1494	1500	1500	142
15°	1442	1444	1446	1459	1459	407
25°	1327	1335	1347	1370	1374	612
35°	1166	1180	1207	1238	1248	730
45°	966	986	1034	1085	1104	744
55°	732	763	844	924	953	652
65°	470	524	646	741	774	464
75°	204	297	431	510	522	220
85°	39	85	105	116	118	47
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1504.0	1504.0	1504.0	1504.0	1504.0
2.5°	1506.0	1504.0	1496.2	1504.0	1504.0
5°	1500.2	1500.2	1494.2	1500.2	1500.2
7.5°	1490.4	1490.4	1486.4	1494.2	1494.2
10°	1478.7	1478.7	1476.9	1486.4	1486.4
12.5°	1461.4	1463.1	1461.4	1472.9	1472.9
15°	1441.8	1443.8	1445.8	1459.4	1459.4
17.5°	1416.7	1420.5	1424.5	1439.8	1441.8
20°	1393.4	1395.2	1403.0	1420.5	1422.5
22.5°	1362.4	1368.1	1377.9	1395.2	1401.2
25°	1327.3	1335.1	1346.8	1370.1	1373.9
27.5°	1294.4	1300.2	1315.8	1341.1	1348.8
30°	1253.6	1263.4	1282.7	1308.0	1317.7
32.5°	1214.8	1224.5	1247.8	1274.9	1282.7
35°	1166.4	1179.9	1207.0	1238.1	1247.8
37.5°	1119.8	1133.3	1166.4	1201.2	1213.0
40°	1071.2	1086.7	1121.8	1162.4	1177.9
42.5°	1018.8	1040.1	1078.9	1123.6	1141.1
45°	966.4	985.9	1034.3	1084.7	1104.2
47.5°	910.2	933.5	985.9	1046.1	1069.4
50°	850.1	879.2	939.3	1005.2	1030.5
52.5°	789.9	822.8	890.7	964.4	991.7
55°	731.6	762.6	844.1	923.8	952.9
57.5°	667.6	706.5	795.7	881.0	910.2
60°	601.5	644.3	747.1	836.3	867.4
62.5°	535.6	584.2	700.5	789.9	822.8
65°	469.7	524.0	646.3	741.3	774.4
67.5°	405.5	465.7	595.7	690.9	723.8
70°	331.8	407.5	541.4	634.6	667.6
72.5°	263.9	351.3	489.0	576.4	605.5
75°	203.8	297.0	430.8	510.3	522.0
77.5°	149.4	242.6	370.7	397.8	399.7
80°	101.0	194.0	283.4	279.4	283.4
82.5°	65.9	145.6	178.5	200.0	201.8
85°	38.8	85.4	104.8	116.5	118.3
87.5°	19.3	29.1	36.8	38.8	42.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)