

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: P292523

Luminaire Tested: **22GR-LD5-24-A19/156-UNV-L83050-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P292523
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33284)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22GR-LD5-24-A19/156-UNV-L83050-W2A1-U-3500K
Description: GRLED 2x2 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (168) 80 CRI LEDS TUNED TO 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2403.0 lumens
Efficiency: N/A
Efficacy: 132.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.24 / 1.21
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

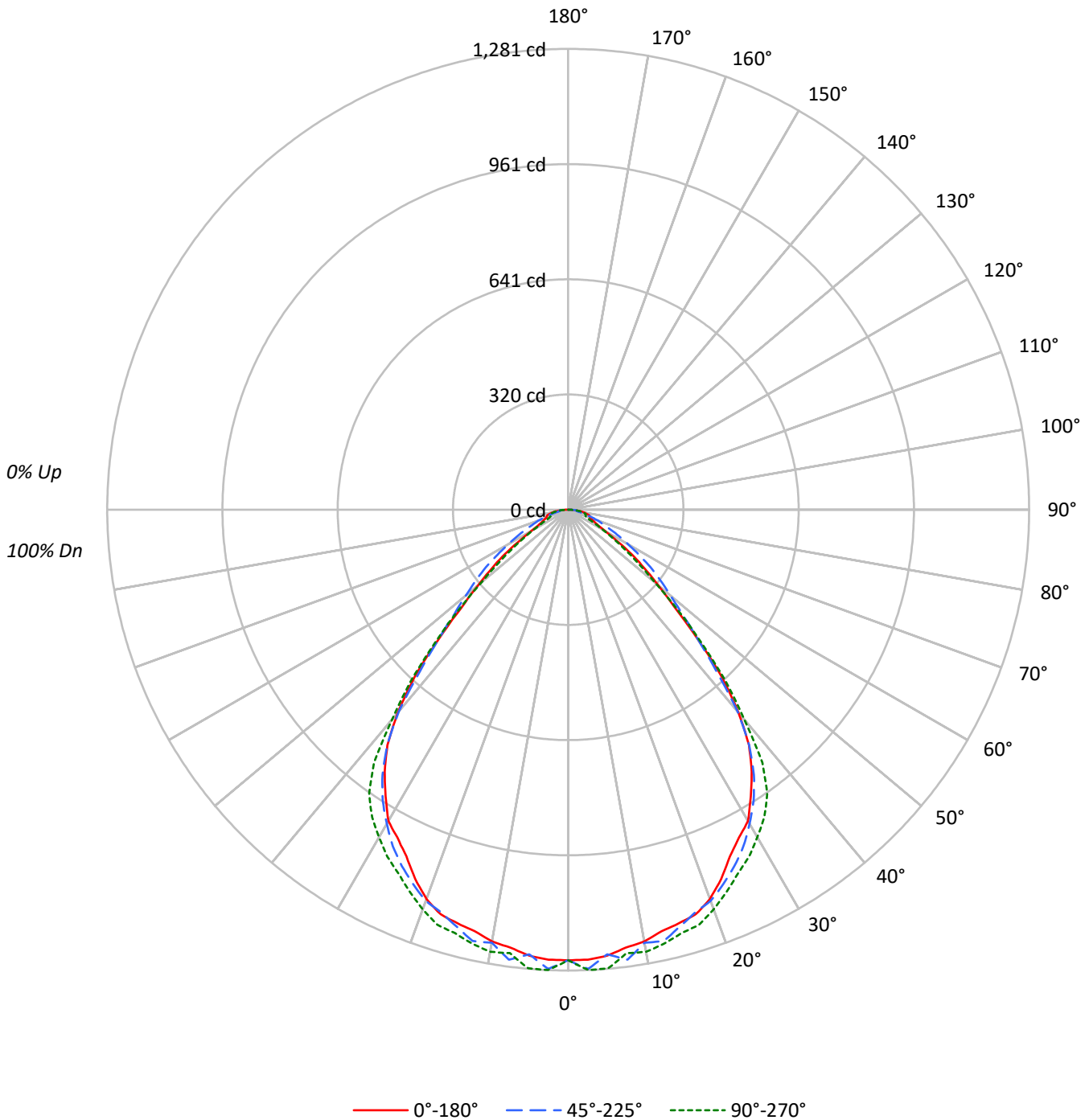
Input Watts (W): 18.135
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	91	90	88					88			
2	103	96	90	85	100	94	89	85	91	86	83	88	84	81	85	82	79	77					77			
3	95	86	79	74	93	85	79	73	82	77	72	79	75	71	77	73	70	68					68			
4	88	78	71	65	86	77	70	64	75	68	64	72	67	63	70	66	62	60					60			
5	82	71	63	58	80	70	63	57	68	62	57	66	61	56	64	59	56	54					54			
6	77	65	57	51	75	64	57	51	62	56	51	61	55	50	59	54	50	48					48			
7	72	60	52	46	70	59	51	46	57	51	46	56	50	46	55	49	45	44					44			
8	67	55	47	42	66	54	47	42	53	46	42	52	46	41	51	45	41	40					40			
9	63	51	43	38	62	50	43	38	49	43	38	48	42	38	47	42	38	36					36			
10	59	47	40	35	58	47	40	35	46	39	35	45	39	35	44	39	35	33					33			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3370	3370	3370
5°	3362	3351	3457
10°	3331	3340	3410
15°	3316	3341	3394
20°	3298	3314	3385
25°	3157	3246	3313
30°	3105	3133	3267
35°	2920	2957	3167
40°	2588	2570	2671
45°	1933	1937	1991
50°	1361	1548	1318
55°	1004	1307	900
60°	628	1033	588
65°	512	818	411
70°	507	681	405
75°	630	500	524
80°	702	395	640
85°	698	735	716



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.2	5.0
10°-20°	339.6	14.1
20°-30°	502.9	20.9
30°-40°	563.4	23.4
40°-50°	413.9	17.2
50°-60°	231.4	9.6
60°-70°	129.0	5.4
70°-80°	75.8	3.2
80°-90°	27.9	1.2
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°	961.7	40.0
0°-40°	1525.1	63.5
0°-60°	2170.4	90.3
0°-90°	2403.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2403.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1252	1252	1252	1252	1252	
5°	1244	1268	1240	1266	1280	118
15°	1190	1198	1199	1217	1218	336
25°	1063	1072	1093	1109	1116	493
35°	889	890	900	941	964	551
45°	508	549	509	545	523	397
55°	214	260	279	278	192	191
65°	80	143	128	165	64	83
75°	61	86	48	97	50	61
85°	23	33	24	31	23	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1252.4	1252.4	1252.4	1252.4	1252.4
2.5°	1251.8	1263.1	1277.9	1279.6	1280.7
5°	1244.5	1267.7	1240.5	1266.0	1279.6
7.5°	1227.5	1241.6	1261.4	1236.0	1243.3
10°	1219.0	1222.4	1222.4	1254.1	1247.8
12.5°	1199.7	1222.4	1228.0	1221.8	1235.4
15°	1190.1	1197.5	1199.2	1217.3	1218.4
17.5°	1179.3	1177.6	1173.7	1186.7	1209.9
20°	1151.6	1145.4	1157.3	1173.1	1182.2
22.5°	1110.8	1112.5	1126.7	1139.7	1149.9
25°	1063.3	1071.8	1093.3	1108.6	1115.9
27.5°	1027.6	1040.1	1054.8	1072.9	1087.6
30°	999.3	998.2	1008.4	1034.4	1051.4
32.5°	944.4	948.3	959.1	990.2	1014.0
35°	888.9	889.5	900.2	941.0	964.2
37.5°	824.9	820.4	826.6	870.8	886.1
40°	736.6	737.7	731.5	762.6	760.4
42.5°	633.5	642.6	610.3	651.1	648.3
45°	507.9	549.2	509.0	545.2	523.1
47.5°	400.9	462.0	428.6	455.2	413.9
50°	325.0	387.8	369.7	381.6	314.8
52.5°	266.7	317.6	323.3	326.1	245.7
55°	214.0	260.4	278.6	278.0	191.9
57.5°	158.0	211.7	232.7	241.2	145.5
60°	116.6	176.1	191.9	210.6	109.3
62.5°	94.0	154.6	158.5	184.6	83.2
65°	80.4	142.7	128.5	164.8	64.5
67.5°	71.3	133.1	104.7	147.2	54.9
70°	64.5	118.3	86.6	131.9	51.5
72.5°	62.8	100.8	66.8	117.8	51.0
75°	60.6	85.5	48.1	96.8	50.4
77.5°	52.1	73.0	34.5	74.7	47.0
80°	45.3	58.3	25.5	56.1	41.3
82.5°	35.1	44.2	22.6	42.5	33.4
85°	22.6	33.4	23.8	30.6	23.2
87.5°	10.8	18.7	17.0	16.4	11.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)