

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: P291397

Luminaire Tested: **14GR-LD5-28-A19/156-UNV-L82765-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291397
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33288)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14GR-LD5-28-A19/156-UNV-L82765-W2A1-U-4000K
Description: GRLED 1x4 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (168) 80 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2796.0 lumens
Efficiency: N/A
Efficacy: 124.2 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.23 / 1.18
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

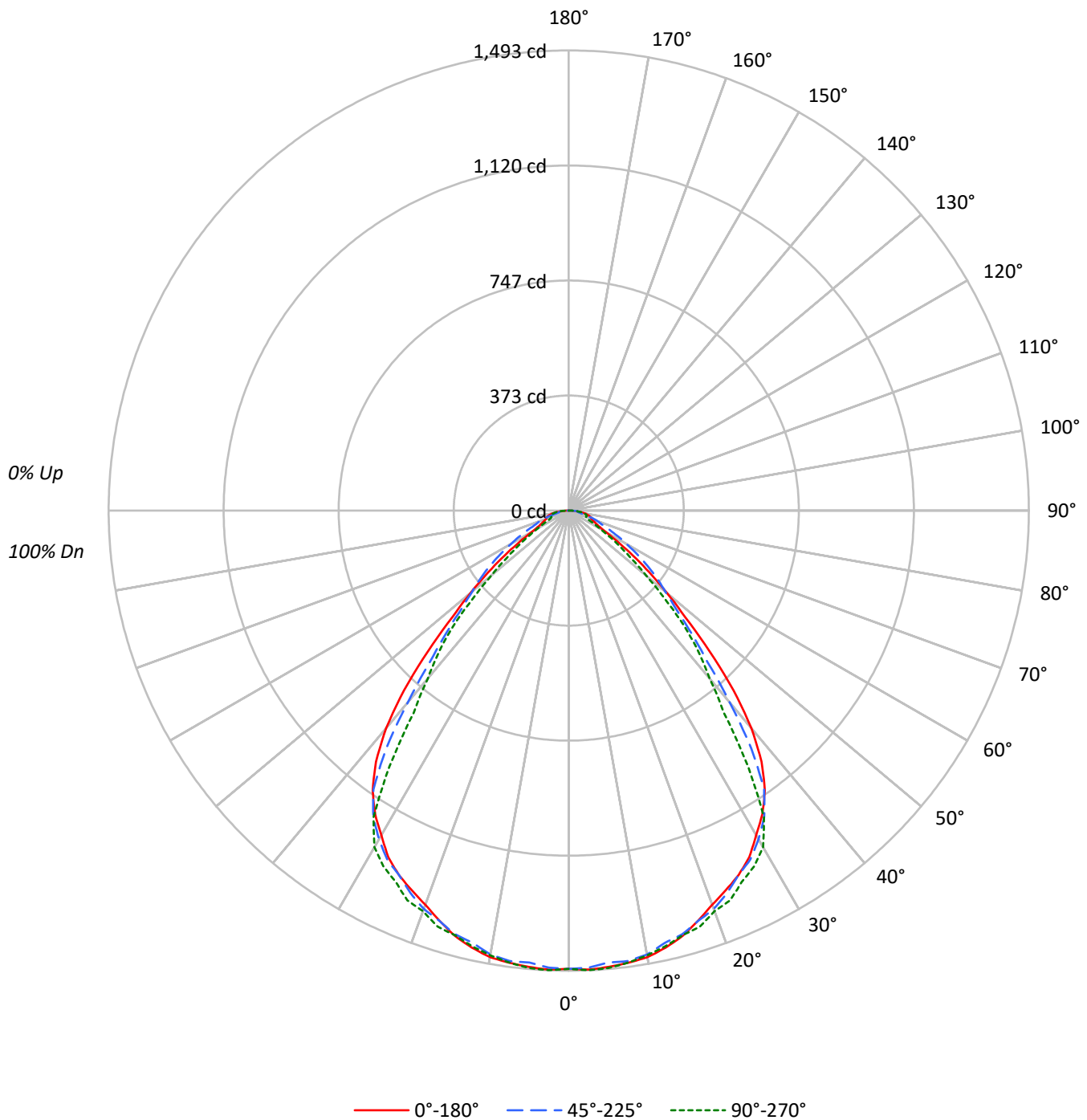
Input Watts (W): 22.506
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111			106	106	106			102
1	111	107	104	100	108	105	102	99		101	98	96			97	95	93			93
2	103	96	90	86	100	94	89	85		91	87	83			88	84	81			85
3	95	87	80	74	93	85	79	74		82	77	73			80	75	71			77
4	89	79	71	65	87	77	70	65		75	69	64			73	68	63			71
5	83	71	64	58	81	70	63	58		68	62	57			67	61	57			65
6	77	65	58	52	75	64	57	52		63	56	51			61	55	51			60
7	72	60	52	47	70	59	52	47		58	51	46			56	51	46			55
8	67	55	48	43	66	55	47	42		53	47	42			52	46	42			51
9	63	51	44	39	62	51	44	39		50	43	39			49	43	38			48
10	60	48	40	36	58	47	40	36		46	40	35			45	39	35			44

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4001	4001	4001
5°	4015	3977	4023
10°	4021	3996	4003
15°	3980	3965	3974
20°	3897	3939	3961
25°	3873	3871	3945
30°	3779	3824	3918
35°	3644	3629	3335
40°	3235	2855	2500
45°	2455	2136	2022
50°	1742	1709	1372
55°	1192	1460	943
60°	737	1164	630
65°	607	897	457
70°	604	780	468
75°	726	559	626
80°	834	516	784
85°	790	908	889



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.1	5.0
10°-20°	402.6	14.4
20°-30°	605.5	21.7
30°-40°	660.1	23.6
40°-50°	462.2	16.5
50°-60°	261.6	9.4
60°-70°	143.2	5.1
70°-80°	86.8	3.1
80°-90°	32.9	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°	1149.2	41.1
0°-40°	1809.3	64.7
0°-60°	2533.2	90.6
0°-90°	2796.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2796.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1487	1487	1487	1487	1487	
5°	1486	1484	1472	1489	1489	141
15°	1429	1425	1423	1444	1427	402
25°	1304	1307	1304	1334	1329	599
35°	1109	1104	1105	1048	1015	683
45°	645	673	561	554	531	501
55°	254	304	311	308	201	232
65°	95	157	141	178	72	98
75°	70	100	54	106	60	72
85°	26	42	29	36	29	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1486.8	1486.8	1486.8	1486.8	1486.8
2.5°	1490.6	1488.7	1484.2	1493.2	1492.6
5°	1486.2	1483.6	1472.1	1489.4	1489.4
7.5°	1479.8	1473.4	1474.0	1483.6	1479.1
10°	1471.4	1460.6	1462.5	1465.0	1465.0
12.5°	1452.2	1442.0	1436.9	1445.2	1447.8
15°	1428.6	1424.7	1423.4	1443.9	1426.6
17.5°	1395.3	1403.6	1395.9	1412.6	1415.1
20°	1360.7	1376.7	1375.4	1387.0	1383.1
22.5°	1332.6	1342.8	1342.8	1356.9	1368.4
25°	1304.4	1307.0	1303.8	1333.8	1328.7
27.5°	1267.9	1266.0	1276.2	1291.6	1301.8
30°	1216.1	1216.7	1230.8	1251.3	1260.9
32.5°	1168.7	1162.9	1180.2	1189.2	1178.9
35°	1109.2	1104.1	1104.7	1048.4	1015.1
37.5°	1027.9	1032.4	973.5	870.4	826.9
40°	921.0	930.0	812.8	736.0	711.7
42.5°	791.7	794.3	666.3	641.3	625.3
45°	645.2	673.3	561.3	554.3	531.2
47.5°	511.4	563.9	470.4	474.9	419.9
50°	416.0	468.5	408.3	410.3	327.7
52.5°	329.0	380.2	360.3	354.6	257.3
55°	254.1	304.0	311.1	308.5	201.0
57.5°	186.9	240.7	261.1	270.7	154.9
60°	137.0	196.5	216.3	235.5	117.1
62.5°	108.8	170.2	177.3	205.5	90.9
65°	95.4	156.8	140.8	177.9	71.7
67.5°	85.1	149.1	114.6	157.4	62.7
70°	76.8	134.4	99.2	140.8	59.5
72.5°	76.8	117.8	78.1	124.8	60.2
75°	69.8	100.5	53.8	105.6	60.2
77.5°	62.1	85.8	40.3	85.8	56.3
80°	53.8	67.2	33.3	65.9	50.6
82.5°	39.7	50.6	28.8	49.3	41.0
85°	25.6	41.6	29.4	35.8	28.8
87.5°	12.2	21.1	18.6	17.9	14.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)