

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: NEO-RAY

Report Number: P199495

Luminaire Tested: **S124-DIW-U2-LO-30-0048-1D-UDD-1-5-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P199495
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P28062 P28062)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124-DIW-U2-LO-30-0048-1D-UDD-1-5-W
Description: DEFINE 4-INCH DIRECT/INDIRECT WALL LED LUMINAIRE
UPLIGHT LL2-3000K, SATIN WHITE DIFFUSER
DOWNLIGHT LLO-3000K, SATIN WHITE DIFFUSER
Light Source: -
757G
Ballast/Driver: ELECTRONIC DRIVERS

Summary

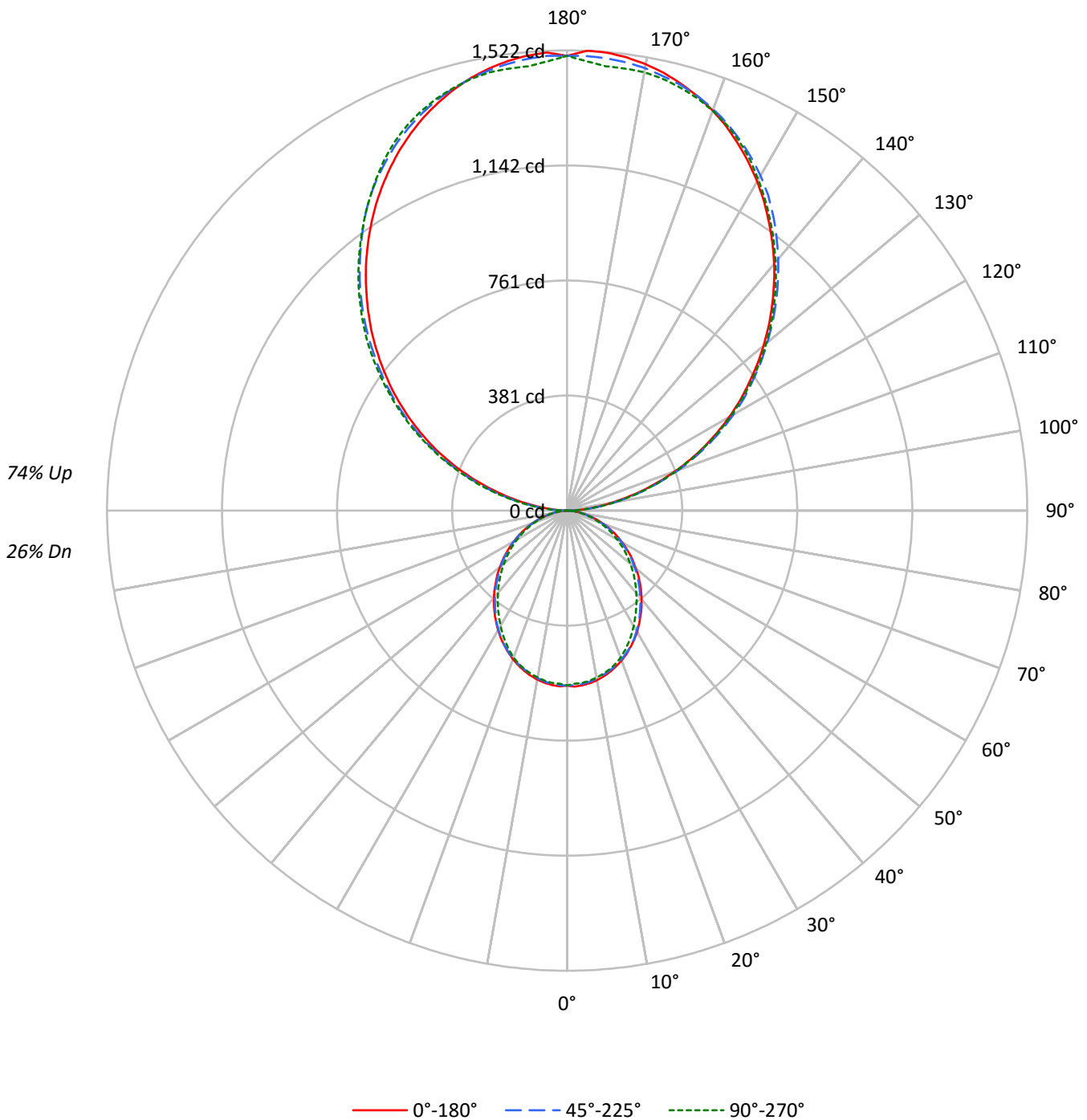
Lumens per Lamp: N/A
Luminaire Lumens: 5585.4 lumens
Efficiency: N/A
Efficacy: 106.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.14 / 1.28
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4.08' x H: 0.38')
CIE Type: Semi-Indirect

Input Watts (W): 52.3
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	0
RCR																		
0	101	101	101	101	90	90	90	90	70	70	70	51	51	51	34	34	34	26
1	92	88	85	81	82	79	76	73	61	59	57	45	44	42	30	29	29	22
2	84	77	71	66	75	69	64	60	54	50	47	39	37	35	26	25	24	18
3	77	68	61	55	68	61	55	50	47	43	40	35	32	30	23	22	21	16
4	70	60	52	47	62	54	47	42	42	37	34	31	28	26	21	19	18	13
5	64	53	45	40	57	48	41	36	37	33	29	28	25	22	19	17	15	12
6	59	48	40	34	52	43	36	31	34	29	25	25	22	19	17	15	14	10
7	54	43	35	30	48	38	32	27	30	26	22	23	19	17	16	14	12	9
8	50	39	31	26	45	35	28	24	28	23	19	21	17	15	14	12	11	8
9	47	35	28	23	42	32	25	21	25	21	17	19	16	13	13	11	10	7
10	44	32	25	21	39	29	23	19	23	19	15	17	14	12	12	10	9	7

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	4576	4576	4576
5°	4568	4134	4560
10°	4504	3755	4484
15°	4406	3418	4384
20°	4293	3088	4262
25°	4157	2753	4118
30°	4013	2439	3962
35°	3843	2148	3789
40°	3672	1891	3608
45°	3487	1655	3418
50°	3278	1432	3220
55°	3091	1225	3011
60°	2860	1027	2778
65°	2631	832	2526
70°	2337	640	2229
75°	1966	450	1823
80°	1476	274	1383
85°	868	121	819



TEST NUMBER: P199495

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.5	1.0
10°-20°	153.6	2.7
20°-30°	225.0	4.0
30°-40°	257.9	4.6
40°-50°	254.2	4.6
50°-60°	219.1	3.9
60°-70°	159.8	2.9
70°-80°	87.1	1.6
80°-90°	22.8	0.4
90°-100°	77.1	1.4
100°-110°	280.3	5.0
110°-120°	496.3	8.9
120°-130°	659.8	11.8
130°-140°	742.0	13.3
140°-150°	729.5	13.1
150°-160°	615.7	11.0
160°-170°	408.4	7.3
170°-180°	142.3	2.5
0°-30°	433.1	7.8
0°-40°	690.9	12.4
0°-60°	1164.3	20.8
0°-90°	1434.0	25.7
90°-120°	853.7	15.3
90°-150°	2985.0	53.4
90°-180°	4151.0	74.3
0°-180°	5585.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	579	579	579	579	579	
5°	580	576	572	575	579	55
15°	551	547	543	544	549	155
25°	497	495	481	491	492	229
35°	424	419	398	413	418	265
45°	340	333	314	328	334	263
55°	254	249	232	244	247	226
65°	168	164	152	160	162	166
75°	86	83	77	80	80	92
85°	20	20	18	19	18	22
90°	1	1	1	1	1	5
95°	65	72	70	66	50	71
105°	260	272	269	263	242	276
115°	501	514	505	498	479	495
125°	733	750	743	732	711	656
135°	959	977	968	960	930	740
145°	1164	1189	1171	1170	1136	728
155°	1338	1353	1348	1338	1314	616
165°	1460	1457	1448	1447	1443	412
175°	1520	1502	1475	1500	1510	144
180°	1504	1504	1504	1504	1504	



TEST NUMBER: P199495

CATALOG NUMBER: S124-DIW-U2-LO-30-0048-1D-UDD-1-5-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	578.6	578.6	578.6	578.6	578.6	578.6	578.6	578.6	578.6
2.5°	582.8	576.2	578.3	576.9	573.0	576.9	577.9	575.8	582.1
5°	580.0	573.7	575.8	573.7	572.0	573.4	575.1	572.7	579.0
7.5°	575.8	569.2	570.9	569.2	567.4	568.8	569.9	567.8	574.4
10°	569.9	562.9	564.6	562.5	560.4	561.8	562.9	560.8	567.4
12.5°	561.5	554.9	556.2	554.9	553.1	553.5	554.2	552.1	559.0
15°	551.4	544.7	547.2	545.8	543.3	544.7	544.4	541.9	548.6
17.5°	539.8	533.5	536.3	534.9	531.4	533.5	533.5	529.7	536.7
20°	527.2	520.6	524.4	520.9	517.1	519.2	520.9	516.4	523.4
22.5°	513.2	506.2	510.8	504.5	500.3	502.7	506.9	502.0	508.3
25°	496.8	491.2	495.4	486.6	481.0	484.5	491.2	486.3	492.2
27.5°	480.7	475.1	478.6	468.8	461.1	465.6	474.0	469.8	475.1
30°	462.8	458.3	460.0	448.5	440.5	445.3	455.1	452.7	456.9
32.5°	443.3	439.8	439.8	427.5	419.1	424.7	435.2	434.5	437.3
35°	423.7	421.6	419.1	405.8	397.8	403.0	413.2	416.0	417.7
37.5°	403.7	402.3	397.8	384.8	377.1	382.7	392.2	396.4	397.4
40°	383.1	382.4	376.1	363.8	356.1	361.7	371.5	376.8	376.4
42.5°	362.1	362.8	355.1	343.2	335.5	341.1	350.2	357.2	355.4
45°	340.4	342.5	333.4	322.6	314.5	320.5	327.8	336.5	333.7
47.5°	319.4	321.9	312.4	301.2	293.5	299.8	307.2	316.6	312.4
50°	295.6	300.5	291.4	280.2	272.5	278.5	287.2	295.3	290.4
52.5°	275.0	278.5	270.4	259.6	252.2	257.1	265.9	273.9	268.7
55°	253.6	257.5	249.4	238.6	231.6	236.5	244.2	252.2	247.0
57.5°	231.2	235.1	227.7	218.0	211.3	216.6	224.6	230.2	225.3
60°	209.6	214.5	206.4	197.0	191.4	195.6	201.9	208.5	203.6
62.5°	188.6	193.1	185.4	176.7	171.4	175.3	181.9	187.2	182.6
65°	168.3	171.1	164.4	156.4	151.8	154.3	160.2	166.2	161.6
67.5°	147.6	150.4	143.8	136.8	132.2	134.7	139.6	145.2	141.0
70°	126.6	129.1	123.5	117.2	113.3	115.8	120.3	124.5	120.7
72.5°	106.7	108.5	103.2	98.3	95.5	97.3	100.4	104.3	102.5
75°	86.4	88.5	83.3	79.1	76.6	77.3	79.8	82.9	80.1
77.5°	67.2	69.3	65.1	61.9	60.5	60.9	62.6	65.1	61.6
80°	49.3	51.1	48.6	45.8	44.4	45.1	46.2	47.6	46.2
82.5°	33.2	35.0	33.2	31.5	30.4	31.1	31.5	32.2	31.1
85°	19.6	21.0	19.9	18.9	18.5	18.5	18.9	19.6	18.5
87.5°	8.7	9.8	9.1	8.4	7.3	7.7	8.0	8.7	8.0
90°	0.7	1.7	1.4	1.0	1.0	1.0	1.4	1.7	0.7
92.5°	29.4	33.3	34.3	31.4	31.4	30.4	28.4	27.4	17.6
95°	64.7	70.6	71.6	71.6	69.6	67.6	65.7	60.8	50.0
97.5°	104.9	111.7	113.7	111.7	112.7	110.8	105.9	101.0	90.2
100°	151.0	159.8	161.7	159.8	160.8	155.9	153.9	149.0	136.3
102.5°	201.9	212.7	213.7	211.7	211.7	207.8	205.8	200.0	187.2
105°	259.8	271.5	272.5	268.6	268.6	264.7	262.7	256.8	242.1
107.5°	318.6	330.3	330.3	326.4	326.4	323.5	319.6	315.6	300.9
110°	379.3	389.1	391.1	386.2	385.2	382.3	378.4	372.5	359.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	440.1	449.9	451.9	446.0	445.0	439.1	438.2	431.3	418.6
115°	500.9	510.7	513.6	506.8	504.8	498.0	498.0	491.1	479.3
117.5°	559.7	571.5	574.4	566.6	565.6	559.7	555.8	549.9	537.2
120°	618.5	633.2	635.2	626.4	625.4	618.5	616.6	608.7	596.0
122.5°	677.3	692.0	695.0	687.1	684.2	675.4	674.4	667.5	653.8
125°	733.2	749.9	749.9	746.0	743.0	736.1	732.2	724.4	710.7
127.5°	791.0	808.7	807.7	804.8	801.8	792.0	789.1	781.2	766.5
130°	847.9	863.6	863.6	861.6	859.7	850.8	845.9	838.1	821.4
132.5°	903.8	919.5	921.4	916.5	914.6	902.8	903.8	894.0	877.3
135°	958.7	972.4	977.3	969.4	968.5	955.7	959.6	946.9	930.2
137.5°	1012.6	1023.4	1032.2	1022.4	1021.4	1008.7	1014.5	997.9	983.2
140°	1065.5	1074.3	1086.1	1074.3	1072.4	1060.6	1066.5	1048.8	1036.1
142.5°	1115.5	1123.3	1138.0	1125.3	1122.4	1111.6	1118.4	1097.9	1086.1
145°	1163.5	1169.4	1189.0	1175.3	1171.4	1161.6	1170.4	1144.9	1136.1
147.5°	1211.6	1214.5	1237.0	1224.3	1218.4	1210.6	1219.4	1191.0	1184.1
150°	1256.7	1256.7	1279.2	1269.4	1264.5	1255.7	1261.6	1234.1	1229.2
152.5°	1298.8	1296.8	1317.4	1311.5	1308.6	1298.8	1300.8	1275.3	1272.3
155°	1338.0	1334.1	1352.7	1349.8	1347.8	1338.0	1338.0	1312.5	1313.5
157.5°	1375.3	1367.4	1385.1	1384.1	1380.2	1372.3	1370.4	1347.8	1350.8
160°	1407.6	1400.7	1412.5	1410.5	1407.6	1399.8	1399.8	1380.2	1385.1
162.5°	1436.0	1427.2	1437.0	1431.1	1430.2	1421.3	1425.2	1408.6	1415.4
165°	1460.5	1451.7	1456.6	1448.8	1447.8	1440.0	1446.8	1435.1	1442.9
167.5°	1482.1	1472.3	1471.3	1464.5	1462.5	1456.6	1464.5	1457.6	1466.4
170°	1498.8	1489.0	1486.0	1474.3	1472.3	1467.4	1479.2	1477.2	1485.0
172.5°	1511.5	1501.7	1494.8	1481.1	1474.3	1475.2	1490.9	1490.9	1499.7
175°	1520.3	1509.5	1501.7	1488.0	1475.2	1483.1	1499.7	1500.7	1510.5
177.5°	1522.3	1511.5	1504.6	1491.9	1487.0	1488.0	1505.6	1505.6	1516.4
180°	1503.7	1503.7	1503.7	1503.7	1503.7	1503.7	1503.7	1503.7	1503.7

(END OF REPORT)