

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: P199471

Luminaire Tested: **S124-DIW-U1-2-30-0048-1D-UDD-1-5-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P199471
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-U1-2-30-0048-1D-UDD-1-5-W
Description: DEFINE 4-INCH DIRECT/INDIRECT WALL LED LUMINAIRE
UPLIGHT LL1-3000K, SATIN WHITE DIFFUSER
DOWNLIGHT LL2-3000K, SATIN WHITE DIFFUSER
Light Source: -
757G
Ballast/Driver: ELECTRONIC DRIVERS

Summary

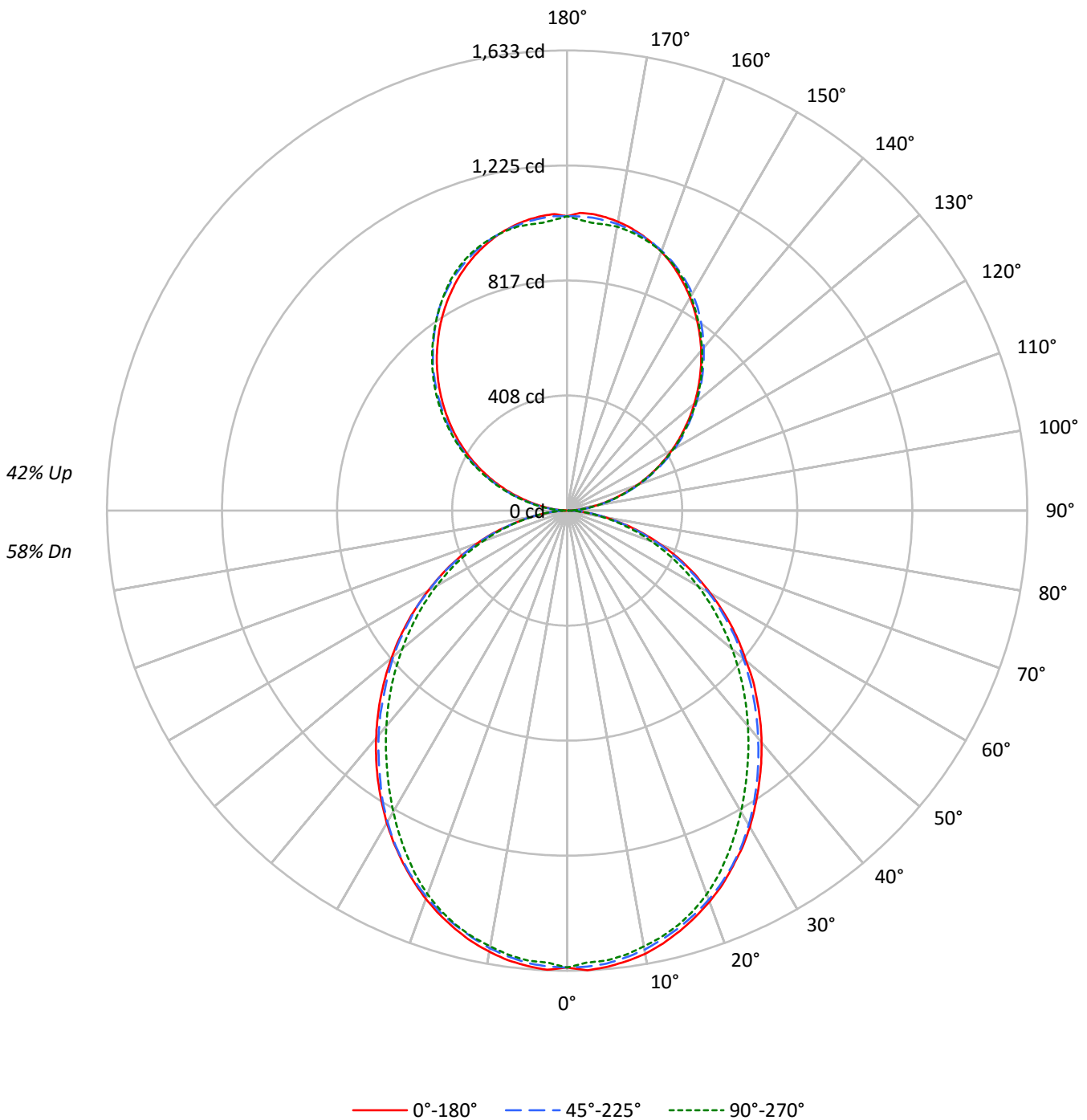
Lumens per Lamp: N/A
Luminaire Lumens: 6901.8 lumens
Efficiency: N/A
Efficacy: 103.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.14 / 1.28
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4.08' x H: 0.38')
CIE Type: General Diffuse

Input Watts (W): 67
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	109	109	109	109	102	102	102	102	88	88	88	75	75	75	64	64	64	58
1	100	95	91	88	93	89	86	83	77	75	73	66	65	63	56	55	54	49
2	91	83	77	72	84	78	73	68	68	64	60	58	55	53	50	48	46	41
3	83	73	66	60	77	69	62	57	60	55	51	52	48	45	44	41	39	35
4	76	65	57	51	71	61	54	48	53	48	43	46	42	38	40	36	34	30
5	70	58	50	44	65	55	47	42	48	42	38	42	37	33	36	32	29	26
6	64	52	44	38	60	49	42	36	43	37	33	38	33	29	32	29	26	23
7	60	47	39	34	55	44	37	32	39	33	29	34	30	26	30	26	23	21
8	55	43	35	30	52	40	33	28	36	30	26	31	27	23	27	24	21	18
9	52	39	32	27	48	37	30	25	33	27	23	29	24	21	25	21	19	17
10	48	36	29	24	45	34	27	23	30	25	21	27	22	19	23	20	17	15

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	12822	12822	12822
5°	12799	11583	12776
10°	12618	10523	12564
15°	12344	9577	12282
20°	12030	8651	11942
25°	11647	7714	11540
30°	11246	6832	11102
35°	10768	6019	10617
40°	10287	5299	10109
45°	9770	4638	9578
50°	9185	4014	9022
55°	8663	3432	8435
60°	8013	2876	7785
65°	7371	2333	7080
70°	6551	1795	6244
75°	5509	1262	5109
80°	4138	768	3875
85°	2430	340	2302



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.6	2.2
10°-20°	430.3	6.2
20°-30°	630.4	9.1
30°-40°	722.5	10.5
40°-50°	712.3	10.3
50°-60°	614.0	8.9
60°-70°	447.7	6.5
70°-80°	244.1	3.5
80°-90°	64.1	0.9
90°-100°	53.9	0.8
100°-110°	194.7	2.8
110°-120°	344.7	5.0
120°-130°	458.3	6.6
130°-140°	515.3	7.5
140°-150°	506.7	7.3
150°-160°	427.6	6.2
160°-170°	283.7	4.1
170°-180°	98.9	1.4
0°-30°	1213.4	17.6
0°-40°	1935.9	28.0
0°-60°	3262.1	47.3
0°-90°	4018.0	58.2
90°-120°	593.3	8.6
90°-150°	2073.6	30.0
90°-180°	2884.0	41.8
0°-180°	6901.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1621	1621	1621	1621	1621	
5°	1625	1614	1603	1612	1622	154
15°	1545	1533	1522	1525	1537	435
25°	1392	1388	1348	1376	1379	641
35°	1187	1174	1114	1158	1170	743
45°	954	934	881	918	935	736
55°	711	699	649	684	692	634
65°	472	461	425	449	453	466
75°	242	233	215	224	224	257
85°	55	56	52	53	52	62
90°	2	4	3	4	2	7
95°	45	50	48	46	35	49
105°	180	189	186	182	168	191
115°	348	357	351	346	333	344
125°	509	521	516	509	494	456
135°	666	679	673	666	646	514
145°	808	826	814	813	789	506
155°	929	940	936	929	912	428
165°	1014	1012	1006	1005	1002	286
175°	1056	1043	1025	1042	1049	100
180°	1044	1044	1044	1044	1044	



TEST NUMBER: P199471

CATALOG NUMBER: S124-DIW-U1-2-30-0048-1D-UDD-1-5-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1621.3	1621.3	1621.3	1621.3	1621.3	1621.3	1621.3	1621.3	1621.3
2.5°	1633.1	1614.4	1620.3	1616.4	1605.6	1616.4	1619.3	1613.5	1631.1
5°	1625.2	1607.6	1613.5	1607.6	1602.7	1606.6	1611.5	1604.6	1622.3
7.5°	1613.5	1594.8	1599.7	1594.8	1589.9	1593.8	1596.8	1590.9	1609.5
10°	1596.8	1577.2	1582.1	1576.2	1570.3	1574.2	1577.2	1571.3	1589.9
12.5°	1573.3	1554.6	1558.6	1554.6	1549.7	1550.7	1552.7	1546.8	1566.4
15°	1544.8	1526.2	1533.1	1529.2	1522.3	1526.2	1525.2	1518.4	1537.0
17.5°	1512.5	1494.8	1502.7	1498.8	1489.0	1494.8	1494.8	1484.1	1503.7
20°	1477.2	1458.6	1469.4	1459.6	1448.8	1454.7	1459.6	1446.8	1466.4
22.5°	1438.0	1418.4	1431.1	1413.5	1401.7	1408.6	1420.3	1406.6	1424.3
25°	1391.9	1376.2	1388.0	1363.5	1347.8	1357.6	1376.2	1362.5	1379.2
27.5°	1346.8	1331.1	1340.9	1313.5	1291.9	1304.7	1328.2	1316.4	1331.1
30°	1296.8	1284.1	1289.0	1256.7	1234.1	1247.8	1275.3	1268.4	1280.2
32.5°	1241.9	1232.1	1232.1	1197.8	1174.3	1190.0	1219.4	1217.4	1225.3
35°	1187.1	1181.2	1174.3	1137.1	1114.5	1129.2	1157.6	1165.5	1170.4
37.5°	1131.2	1127.3	1114.5	1078.2	1056.7	1072.4	1098.8	1110.6	1113.5
40°	1073.3	1071.4	1053.7	1019.4	997.9	1013.6	1041.0	1055.7	1054.7
42.5°	1014.5	1016.5	994.9	961.6	940.0	955.7	981.2	1000.8	995.9
45°	953.8	959.6	934.2	903.8	881.2	897.9	918.5	943.0	935.1
47.5°	894.9	901.8	875.3	844.0	822.4	840.1	860.6	887.1	875.3
50°	828.3	842.0	816.5	785.2	763.6	780.3	804.8	827.3	813.6
52.5°	770.5	780.3	757.7	727.3	706.7	720.5	745.0	767.5	752.8
55°	710.7	721.4	698.9	668.5	648.9	662.6	684.2	706.7	692.0
57.5°	647.9	658.7	638.1	610.7	592.1	606.8	629.3	645.0	631.3
60°	587.2	600.9	578.3	551.9	536.2	547.9	565.6	584.2	570.5
62.5°	528.3	541.1	519.5	495.0	480.3	491.1	509.7	524.4	511.7
65°	471.5	479.3	460.7	438.2	425.4	432.3	448.9	465.6	452.9
67.5°	413.7	421.5	402.9	383.3	370.5	377.4	391.1	406.8	395.0
70°	354.8	361.7	346.0	328.4	317.6	324.5	337.2	349.0	338.2
72.5°	299.0	303.9	289.2	275.4	267.6	272.5	281.3	292.1	287.2
75°	242.1	248.0	233.3	221.5	214.7	216.6	223.5	232.3	224.5
77.5°	188.2	194.1	182.3	173.5	169.6	170.6	175.5	182.3	172.5
80°	138.2	143.1	136.3	128.4	124.5	126.4	129.4	133.3	129.4
82.5°	93.1	98.0	93.1	88.2	85.3	87.2	88.2	90.2	87.2
85°	54.9	58.8	55.9	52.9	52.0	52.0	52.9	54.9	52.0
87.5°	24.5	27.4	25.5	23.5	20.6	21.6	22.5	24.5	22.5
90°	2.0	4.9	3.9	2.9	2.9	2.9	3.9	4.9	2.0
92.5°	20.4	23.1	23.8	21.8	21.8	21.1	19.7	19.1	12.3
95°	44.9	49.0	49.7	49.7	48.3	47.0	45.6	42.2	34.7
97.5°	72.8	77.6	79.0	77.6	78.3	76.9	73.5	70.1	62.6
100°	104.8	111.0	112.3	111.0	111.7	108.3	106.9	103.5	94.6
102.5°	140.3	147.7	148.4	147.1	147.1	144.3	143.0	138.9	130.0
105°	180.4	188.6	189.3	186.5	186.5	183.8	182.5	178.4	168.2
107.5°	221.3	229.4	229.4	226.7	226.7	224.7	222.0	219.2	209.0
110°	263.5	270.3	271.7	268.2	267.6	265.5	262.8	258.7	249.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	305.7	312.5	313.9	309.8	309.1	305.0	304.3	299.6	290.7
115°	347.9	354.7	356.8	352.0	350.6	345.9	345.9	341.1	332.9
117.5°	388.8	396.9	399.0	393.5	392.8	388.8	386.0	381.9	373.1
120°	429.6	439.8	441.2	435.1	434.4	429.6	428.2	422.8	413.9
122.5°	470.5	480.7	482.7	477.3	475.2	469.1	468.4	463.6	454.1
125°	509.3	520.8	520.8	518.1	516.1	511.3	508.6	503.1	493.6
127.5°	549.4	561.7	561.0	559.0	556.9	550.1	548.1	542.6	532.4
130°	588.9	599.8	599.8	598.5	597.1	591.0	587.6	582.1	570.5
132.5°	627.7	638.6	640.0	636.6	635.2	627.0	627.7	620.9	609.3
135°	665.9	675.4	678.8	673.3	672.7	663.8	666.5	657.7	646.1
137.5°	703.3	710.8	716.9	710.1	709.4	700.6	704.7	693.1	682.9
140°	740.1	746.2	754.4	746.2	744.8	736.7	740.7	728.5	719.6
142.5°	774.8	780.2	790.4	781.6	779.6	772.1	776.8	762.5	754.4
145°	808.1	812.2	825.8	816.3	813.6	806.8	812.9	795.2	789.1
147.5°	841.5	843.6	859.2	850.4	846.3	840.8	847.0	827.2	822.4
150°	872.8	872.8	888.5	881.7	878.3	872.1	876.2	857.2	853.8
152.5°	902.1	900.7	915.0	911.0	908.9	902.1	903.5	885.8	883.7
155°	929.3	926.6	939.5	937.5	936.1	929.3	929.3	911.6	912.3
157.5°	955.2	949.8	962.0	961.3	958.6	953.2	951.8	936.1	938.2
160°	977.7	972.9	981.1	979.7	977.7	972.2	972.2	958.6	962.0
162.5°	997.4	991.3	998.1	994.0	993.3	987.2	989.9	978.4	983.1
165°	1014.4	1008.3	1011.7	1006.3	1005.6	1000.1	1004.9	996.7	1002.2
167.5°	1029.4	1022.6	1021.9	1017.2	1015.8	1011.7	1017.2	1012.4	1018.5
170°	1041.0	1034.2	1032.1	1024.0	1022.6	1019.2	1027.4	1026.0	1031.5
172.5°	1049.8	1043.0	1038.3	1028.7	1024.0	1024.7	1035.5	1035.5	1041.7
175°	1056.0	1048.5	1043.0	1033.5	1024.7	1030.1	1041.7	1042.4	1049.2
177.5°	1057.3	1049.8	1045.1	1036.2	1032.8	1033.5	1045.8	1045.8	1053.2
180°	1044.4	1044.4	1044.4	1044.4	1044.4	1044.4	1044.4	1044.4	1044.4

(END OF REPORT)