

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: P199491

Luminaire Tested: **S124-DIW-U2-2-35-0048-1D-UDD-1-5-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P199491  
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-U2-2-35-0048-1D-UDD-1-5-W  
Description: DEFINE 4-INCH DIRECT/INDIRECT WALL LED LUMINAIRE  
UPLIGHT LL2-3500K, SATIN WHITE DIFFUSER  
DOWNLIGHT LL2-3500K, SATIN WHITE DIFFUSER  
Light Source: -  
757G  
Ballast/Driver: ELECTRONIC DRIVERS

**Summary**

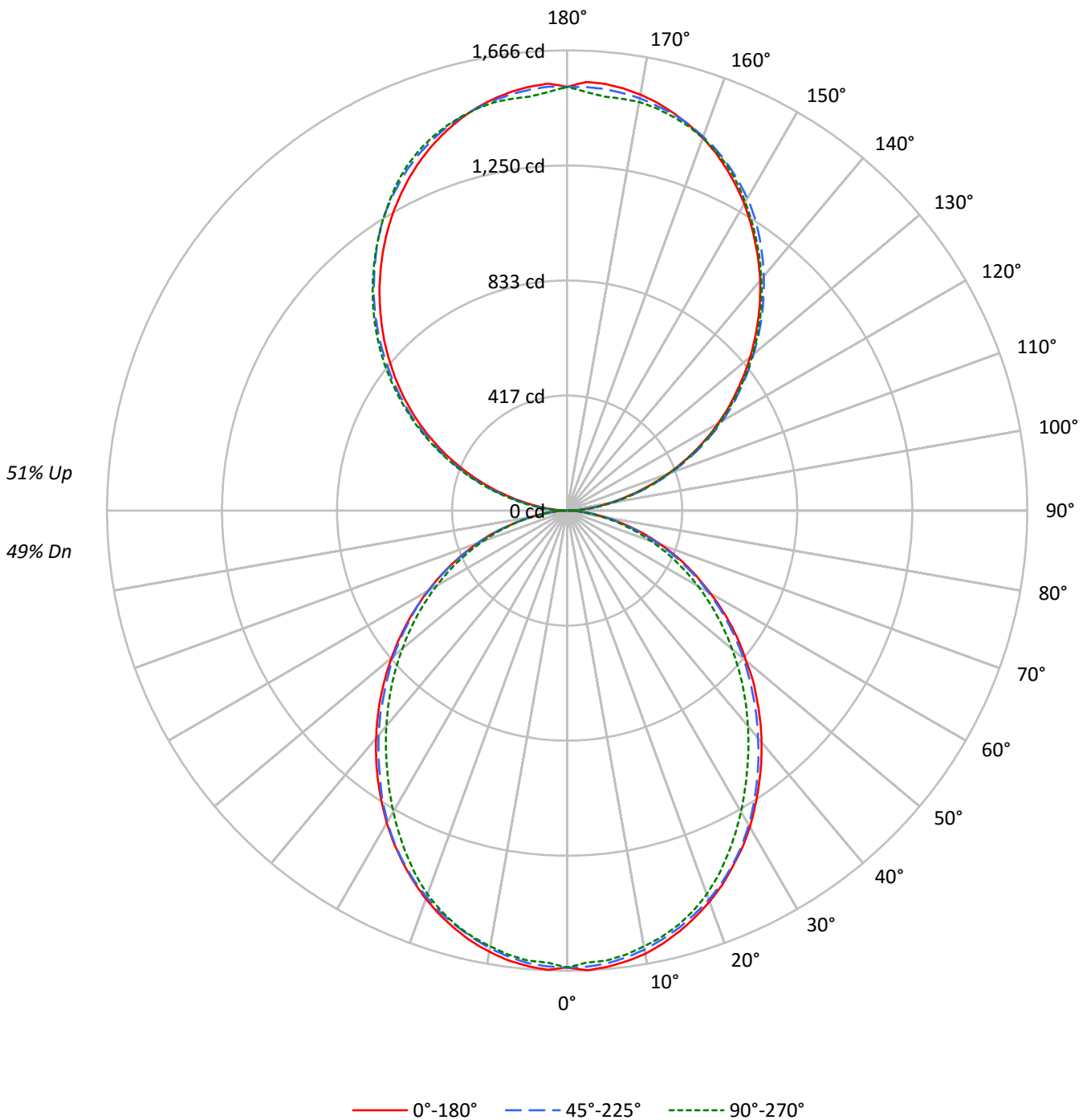
Lumens per Lamp: N/A  
Luminaire Lumens: 8334.5 lumens  
Efficiency: N/A  
Efficacy: 103.5 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.14 / 1.28  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4.08' x H: 0.38')  
CIE Type: General Diffuse

Input Watts (W): 80.5  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	55	55	55	49
1	98	93	90	86	90	86	83	80	73	70	68	60	59	57	49	48	47	42
2	89	82	76	70	82	75	70	66	64	60	57	53	50	48	43	41	40	35
3	81	72	65	59	75	66	60	55	56	52	48	47	44	41	38	36	34	30
4	74	64	56	50	68	59	52	47	50	45	41	42	38	35	34	32	29	26
5	68	57	49	43	63	53	45	40	45	39	35	38	34	30	31	28	26	22
6	63	51	43	37	58	47	40	35	40	35	31	34	30	27	28	25	23	20
7	58	46	38	32	54	43	36	31	37	31	27	31	27	24	26	23	20	17
8	54	42	34	29	50	39	32	27	34	28	24	28	24	21	24	20	18	16
9	50	38	31	26	46	36	29	24	31	25	22	26	22	19	22	19	16	14
10	47	35	28	23	43	33	26	22	28	23	19	24	20	17	20	17	15	13

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

	0°	90°	180°
0°	13080	13080	13080
5°	13057	11816	13033
10°	12873	10735	12818
15°	12593	9770	12529
20°	12272	8825	12183
25°	11882	7870	11773
30°	11473	6970	11325
35°	10985	6140	10831
40°	10495	5406	10313
45°	9967	4731	9772
50°	9371	4094	9204
55°	8837	3502	8605
60°	8174	2934	7942
65°	7520	2380	7223
70°	6684	1831	6370
75°	5621	1287	5211
80°	4222	784	3953
85°	2479	347	2346



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	155.7	1.9
10°-20°	439.0	5.3
20°-30°	643.1	7.7
30°-40°	737.1	8.8
40°-50°	726.6	8.7
50°-60°	626.4	7.5
60°-70°	456.7	5.5
70°-80°	249.1	3.0
80°-90°	65.4	0.8
90°-100°	79.0	0.9
100°-110°	286.0	3.4
110°-120°	506.3	6.1
120°-130°	673.1	8.1
130°-140°	756.9	9.1
140°-150°	744.2	8.9
150°-160°	628.1	7.5
160°-170°	416.6	5.0
170°-180°	145.2	1.7
0°-30°	1237.8	14.9
0°-40°	1974.9	23.7
0°-60°	3327.9	39.9
0°-90°	4099.1	49.2
90°-120°	871.2	10.5
90°-150°	3045.5	36.5
90°-180°	4235.0	50.8
0°-180°	8334.5	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1654	1654	1654	1654	1654	
5°	1658	1646	1635	1644	1655	157
15°	1576	1564	1553	1556	1568	444
25°	1420	1416	1375	1404	1407	654
35°	1211	1198	1137	1181	1194	757
45°	973	953	899	937	954	751
55°	725	713	662	698	706	647
65°	481	470	434	458	462	476
75°	247	238	219	228	229	262
85°	56	57	53	54	53	64
90°	2	4	3	4	2	8
95°	66	73	71	67	51	72
105°	265	278	274	268	247	281
115°	511	524	515	508	489	505
125°	748	765	758	747	725	670
135°	978	997	988	979	949	754
145°	1187	1213	1195	1194	1159	743
155°	1365	1380	1375	1365	1340	629
165°	1490	1486	1477	1476	1472	420
175°	1551	1532	1505	1530	1541	147
180°	1534	1534	1534	1534	1534	



TEST NUMBER: P199491

CATALOG NUMBER: S124-DIW-U2-2-35-0048-1D-UDD-1-5-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1654	1654	1654	1654	1654	1654	1654	1654	1654
2.5°	1666	1647	1653	1649	1638	1649	1652	1646	1664
5°	1658	1640	1646	1640	1635	1639	1644	1637	1655
7.5°	1646	1627	1632	1627	1622	1626	1629	1623	1642
10°	1629	1609	1614	1608	1602	1606	1609	1603	1622
12.5°	1605	1586	1590	1586	1581	1582	1584	1578	1598
15°	1576	1557	1564	1560	1553	1557	1556	1549	1568
17.5°	1543	1525	1533	1529	1519	1525	1525	1514	1534
20°	1507	1488	1499	1489	1478	1484	1489	1476	1496
22.5°	1467	1447	1460	1442	1430	1437	1449	1435	1453
25°	1420	1404	1416	1391	1375	1385	1404	1390	1407
27.5°	1374	1358	1368	1340	1318	1331	1355	1343	1358
30°	1323	1310	1315	1282	1259	1273	1301	1294	1306
32.5°	1267	1257	1257	1222	1198	1214	1244	1242	1250
35°	1211	1205	1198	1160	1137	1152	1181	1189	1194
37.5°	1154	1150	1137	1100	1078	1094	1121	1133	1136
40°	1095	1093	1075	1040	1018	1034	1062	1077	1076
42.5°	1035	1037	1015	981	959	975	1001	1021	1016
45°	973	979	953	922	899	916	937	962	954
47.5°	913	920	893	861	839	857	878	905	893
50°	845	859	833	801	779	796	821	844	830
52.5°	786	796	773	742	721	735	760	783	768
55°	725	736	713	682	662	676	698	721	706
57.5°	661	672	651	623	604	619	642	658	644
60°	599	613	590	563	547	559	577	596	582
62.5°	539	552	530	505	490	501	520	535	522
65°	481	489	470	447	434	441	458	475	462
67.5°	422	430	411	391	378	385	399	415	403
70°	362	369	353	335	324	331	344	356	345
72.5°	305	310	295	281	273	278	287	298	293
75°	247	253	238	226	219	221	228	237	229
77.5°	192	198	186	177	173	174	179	186	176
80°	141	146	139	131	127	129	132	136	132
82.5°	95	100	95	90	87	89	90	92	89
85°	56	60	57	54	53	53	54	56	53
87.5°	25	28	26	24	21	22	23	25	23
90°	2	5	4	3	3	3	4	5	2
92.5°	30	34	35	32	32	31	29	28	18
95°	66	72	73	73	71	69	67	62	51
97.5°	107	114	116	114	115	113	108	103	92
100°	154	163	165	163	164	159	157	152	139
102.5°	206	217	218	216	216	212	210	204	191
105°	265	277	278	274	274	270	268	262	247
107.5°	325	337	337	333	333	330	326	322	307
110°	387	397	399	394	393	390	386	380	367



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	449	459	461	455	454	448	447	440	427
115°	511	521	524	517	515	508	508	501	489
117.5°	571	583	586	578	577	571	567	561	548
120°	631	646	648	639	638	631	629	621	608
122.5°	691	706	709	701	698	689	688	681	667
125°	748	765	765	761	758	751	747	739	725
127.5°	807	825	824	821	818	808	805	797	782
130°	865	881	881	879	877	868	863	855	838
132.5°	922	938	940	935	933	921	922	912	895
135°	978	992	997	989	988	975	979	966	949
137.5°	1033	1044	1053	1043	1042	1029	1035	1018	1003
140°	1087	1096	1108	1096	1094	1082	1088	1070	1057
142.5°	1138	1146	1161	1148	1145	1134	1141	1120	1108
145°	1187	1193	1213	1199	1195	1185	1194	1168	1159
147.5°	1236	1239	1262	1249	1243	1235	1244	1215	1208
150°	1282	1282	1305	1295	1290	1281	1287	1259	1254
152.5°	1325	1323	1344	1338	1335	1325	1327	1301	1298
155°	1365	1361	1380	1377	1375	1365	1365	1339	1340
157.5°	1403	1395	1413	1412	1408	1400	1398	1375	1378
160°	1436	1429	1441	1439	1436	1428	1428	1408	1413
162.5°	1465	1456	1466	1460	1459	1450	1454	1437	1444
165°	1490	1481	1486	1478	1477	1469	1476	1464	1472
167.5°	1512	1502	1501	1494	1492	1486	1494	1487	1496
170°	1529	1519	1516	1504	1502	1497	1509	1507	1515
172.5°	1542	1532	1525	1511	1504	1505	1521	1521	1530
175°	1551	1540	1532	1518	1505	1513	1530	1531	1541
177.5°	1553	1542	1535	1522	1517	1518	1536	1536	1547
180°	1534	1534	1534	1534	1534	1534	1534	1534	1534

(END OF REPORT)