

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: P199466

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P199466
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P28062 P28061)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124-DIW-U1-1-30-0048-1D-UDD-1-NA-W
Description: DEFINE 4-INCH DIRECT/INDIRECT WALL LED LUMINAIRE
UPLIGHT LL1-3000K, NO LENS
DOWNLIGHT LL1-3000K, SATIN WHITE DIFFUSER
Light Source: -
757G
Ballast/Driver: ELECTRONIC DRIVERS

Summary

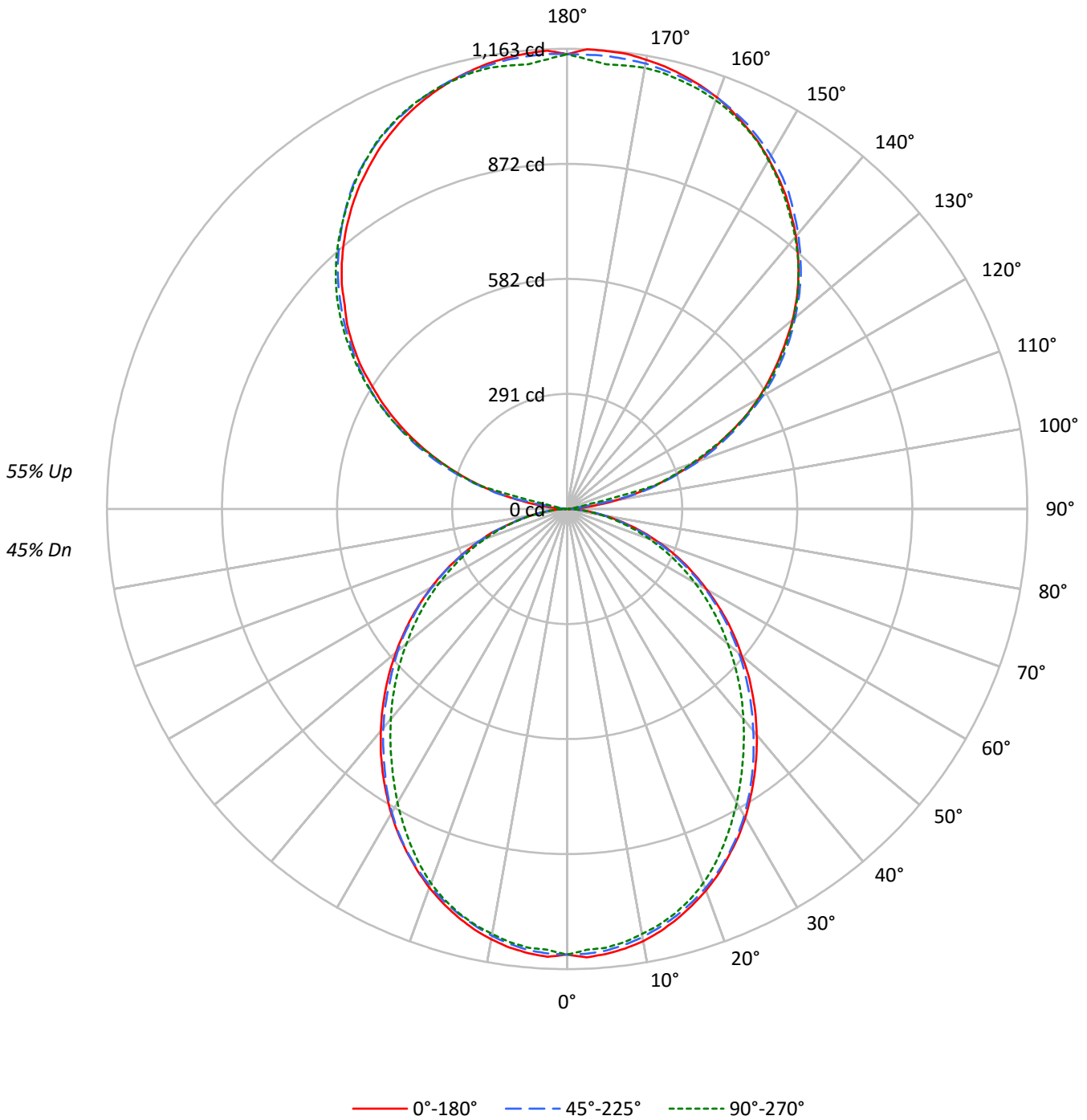
Lumens per Lamp: N/A
Luminaire Lumens: 6237.5 lumens
Efficiency: N/A
Efficacy: 120.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.14 / 1.28
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4.08' x H: 0.38')
CIE Type: General Diffuse

Input Watts (W): 52
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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	45
1	97	92	89	85	88	85	82	79	71	68	66	58	56	54	45	44	43	38
2	88	81	75	70	80	74	69	65	62	58	55	51	48	46	40	38	37	32
3	80	71	64	58	73	65	59	54	55	50	46	45	41	39	36	33	31	27
4	74	63	55	49	67	58	51	46	49	43	39	40	36	33	32	29	27	23
5	68	56	48	42	62	52	45	39	43	38	34	36	32	29	29	26	24	20
6	62	50	42	37	57	46	39	34	39	34	30	32	28	25	26	23	21	18
7	57	45	37	32	53	42	35	30	36	30	26	29	25	22	24	21	19	16
8	53	41	34	28	49	38	31	27	32	27	23	27	23	20	22	19	17	14
9	50	38	30	25	45	35	28	24	30	24	21	25	21	18	20	17	15	13
10	46	34	27	23	43	32	26	21	27	22	19	23	19	16	19	16	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	8906	8906	8906
5°	8890	8045	8874
10°	8764	7309	8727
15°	8574	6651	8530
20°	8355	6009	8294
25°	8090	5358	8015
30°	7811	4745	7711
35°	7479	4180	7374
40°	7146	3681	7022
45°	6785	3221	6653
50°	6380	2788	6267
55°	6016	2384	5859
60°	5565	1998	5407
65°	5120	1620	4917
70°	4551	1247	4337
75°	3828	876	3548
80°	2875	534	2692
85°	1687	236	1598



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.0	1.7
10°-20°	298.9	4.8
20°-30°	437.9	7.0
30°-40°	501.8	8.0
40°-50°	494.7	7.9
50°-60°	426.4	6.8
60°-70°	310.9	5.0
70°-80°	169.6	2.7
80°-90°	44.5	0.7
90°-100°	29.4	0.5
100°-110°	232.3	3.7
110°-120°	449.6	7.2
120°-130°	584.6	9.4
130°-140°	634.6	10.2
140°-150°	600.4	9.6
150°-160°	489.8	7.9
160°-170°	317.1	5.1
170°-180°	109.1	1.7
0°-30°	842.8	13.5
0°-40°	1344.6	21.6
0°-60°	2265.8	36.3
0°-90°	2790.8	44.7
90°-120°	711.2	11.4
90°-150°	2530.8	40.6
90°-180°	3447.0	55.3
0°-180°	6237.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1126	1126	1126	1126	1126	
5°	1129	1121	1113	1119	1127	107
15°	1073	1065	1057	1059	1068	302
25°	967	964	936	956	958	445
35°	824	816	774	804	813	516
45°	662	649	612	638	650	511
55°	494	485	451	475	481	440
65°	328	320	296	312	314	324
75°	168	162	149	155	156	179
85°	38	39	36	37	36	43
90°	1	3	2	3	1	4
95°	40	10	11	11	36	51
105°	232	238	228	232	225	244
115°	451	463	453	457	440	447
125°	651	664	656	650	639	582
135°	826	835	827	819	805	637
145°	965	976	959	962	944	603
155°	1068	1074	1066	1064	1050	492
165°	1134	1129	1120	1123	1122	320
175°	1162	1149	1128	1149	1155	111
180°	1149	1149	1149	1149	1149	



TEST NUMBER: P199466

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

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1126.1	1126.1	1126.1	1126.1	1126.1	1126.1	1126.1	1126.1	1126.1
2.5°	1134.3	1121.3	1125.4	1122.7	1115.2	1122.7	1124.7	1120.6	1132.9
5°	1128.8	1116.6	1120.6	1116.6	1113.2	1115.9	1119.3	1114.5	1126.8
7.5°	1120.6	1107.7	1111.1	1107.7	1104.3	1107.0	1109.1	1105.0	1117.9
10°	1109.1	1095.5	1098.9	1094.8	1090.7	1093.4	1095.5	1091.4	1104.3
12.5°	1092.7	1079.8	1082.5	1079.8	1076.4	1077.1	1078.4	1074.4	1088.0
15°	1073.0	1060.1	1064.8	1062.1	1057.3	1060.1	1059.4	1054.6	1067.5
17.5°	1050.5	1038.3	1043.7	1041.0	1034.2	1038.3	1038.3	1030.8	1044.4
20°	1026.0	1013.1	1020.6	1013.8	1006.3	1010.4	1013.8	1004.9	1018.5
22.5°	998.8	985.2	994.0	981.8	973.6	978.4	986.5	977.0	989.2
25°	966.8	955.9	964.1	947.0	936.1	943.0	955.9	946.4	957.9
27.5°	935.5	924.6	931.4	912.3	897.3	906.2	922.5	914.4	924.6
30°	900.7	891.9	895.3	872.8	857.2	866.7	885.8	881.0	889.2
32.5°	862.6	855.8	855.8	832.0	815.6	826.5	847.0	845.6	851.0
35°	824.5	820.4	815.6	789.8	774.1	784.3	804.1	809.5	812.9
37.5°	785.7	783.0	774.1	748.9	733.9	744.8	763.2	771.4	773.4
40°	745.5	744.1	731.9	708.1	693.1	704.0	723.0	733.3	732.6
42.5°	704.7	706.0	691.0	667.9	652.9	663.8	681.5	695.1	691.7
45°	662.4	666.5	648.8	627.7	612.1	623.6	637.9	655.0	649.5
47.5°	621.6	626.4	608.0	586.2	571.2	583.5	597.8	616.2	608.0
50°	575.3	584.8	567.1	545.3	530.4	541.9	559.0	574.6	565.1
52.5°	535.1	541.9	526.3	505.2	490.9	500.4	517.4	533.1	522.9
55°	493.6	501.1	485.4	464.3	450.7	460.2	475.2	490.9	480.7
57.5°	450.0	457.5	443.2	424.2	411.2	421.4	437.1	448.0	438.5
60°	407.8	417.3	401.7	383.3	372.4	380.6	392.8	405.8	396.2
62.5°	367.0	375.8	360.8	343.8	333.6	341.1	354.0	364.2	355.4
65°	327.5	332.9	320.0	304.3	295.5	300.2	311.8	323.4	314.5
67.5°	287.3	292.8	279.8	266.2	257.4	262.1	271.7	282.5	274.4
70°	246.5	251.2	240.3	228.1	220.6	225.4	234.2	242.4	234.9
72.5°	207.7	211.1	200.8	191.3	185.9	189.3	195.4	202.9	199.5
75°	168.2	172.3	162.0	153.9	149.1	150.5	155.2	161.4	155.9
77.5°	130.7	134.8	126.6	120.5	117.8	118.5	121.9	126.6	119.8
80°	96.0	99.4	94.6	89.2	86.5	87.8	89.9	92.6	89.9
82.5°	64.7	68.1	64.7	61.3	59.2	60.6	61.3	62.6	60.6
85°	38.1	40.8	38.8	36.8	36.1	36.1	36.8	38.1	36.1
87.5°	17.0	19.1	17.7	16.3	14.3	15.0	15.7	17.0	15.7
90°	1.4	3.4	2.7	2.0	2.0	2.0	2.7	3.4	1.4
92.5°	12.9	6.8	6.8	6.8	6.8	6.8	6.8	7.5	8.9
95°	40.2	25.9	10.2	10.9	10.9	10.9	10.9	17.7	36.1
97.5°	78.3	91.2	19.7	12.9	12.9	12.9	19.7	86.5	72.8
100°	123.9	136.2	99.4	31.3	23.1	29.3	87.1	128.7	117.8
102.5°	175.0	190.6	183.1	102.8	59.2	87.8	177.7	182.5	170.2
105°	231.5	245.1	237.6	241.0	228.1	232.2	232.2	234.9	224.7
107.5°	287.3	298.9	294.8	292.1	281.9	284.6	291.4	290.0	278.5
110°	343.1	354.7	354.7	345.9	333.6	338.4	349.3	342.5	332.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	399.0	407.8	409.9	405.1	390.8	397.6	403.7	392.8	386.7
115°	451.4	464.3	463.0	463.6	453.4	453.4	456.8	448.7	439.8
117.5°	507.9	517.4	515.4	516.1	509.3	506.5	505.9	500.4	490.9
120°	557.6	568.5	569.9	565.1	560.3	554.9	558.3	550.8	540.6
122.5°	604.6	616.8	618.9	614.1	609.3	603.2	605.9	597.8	588.2
125°	650.9	664.5	664.5	661.1	656.3	650.2	649.5	642.7	639.3
127.5°	697.2	712.8	710.1	706.7	702.6	695.8	692.4	688.3	682.9
130°	744.1	755.0	752.3	749.6	746.9	738.7	736.0	731.9	725.8
132.5°	787.0	793.2	794.5	789.1	789.1	778.9	778.2	773.4	762.5
135°	826.5	832.7	835.4	827.2	827.2	817.0	819.0	812.2	805.4
137.5°	864.0	868.7	872.1	862.6	863.3	853.8	857.2	845.6	842.9
140°	900.1	902.1	908.2	898.0	896.7	888.5	893.3	881.7	878.3
142.5°	932.1	934.8	942.3	931.4	928.0	921.8	928.0	913.7	911.6
145°	964.7	965.4	976.3	963.4	959.3	954.5	962.0	945.0	943.6
147.5°	993.3	992.0	1004.9	994.0	989.9	985.2	993.3	973.6	973.6
150°	1019.9	1018.5	1030.8	1021.9	1017.8	1013.8	1018.5	1000.1	1000.1
152.5°	1045.8	1041.0	1053.2	1045.8	1044.4	1038.3	1042.4	1024.7	1027.4
155°	1067.5	1062.8	1074.4	1068.2	1065.5	1060.7	1063.5	1046.4	1050.5
157.5°	1088.6	1081.2	1091.4	1088.6	1083.9	1081.2	1081.2	1067.5	1072.3
160°	1107.0	1098.2	1107.0	1102.9	1098.9	1095.5	1098.2	1084.6	1090.7
162.5°	1122.0	1113.8	1118.6	1113.2	1111.1	1105.7	1111.1	1100.2	1107.0
165°	1134.3	1125.4	1128.8	1121.3	1120.0	1115.9	1122.7	1115.2	1122.0
167.5°	1145.2	1137.0	1135.6	1128.1	1128.1	1122.7	1130.9	1126.8	1133.6
170°	1152.6	1145.8	1143.1	1132.2	1132.2	1127.5	1139.0	1135.6	1143.8
172.5°	1160.1	1151.3	1146.5	1134.9	1130.2	1130.9	1145.2	1142.4	1150.6
175°	1161.5	1154.7	1149.2	1137.0	1128.1	1134.3	1148.6	1149.2	1155.4
177.5°	1162.9	1156.1	1149.2	1139.0	1137.7	1136.3	1151.3	1150.6	1159.5
180°	1149.2	1149.2	1149.2	1149.2	1149.2	1149.2	1149.2	1149.2	1149.2

(END OF REPORT)