

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: P199467

Luminaire Tested: **S124-DIW-U1-1-35-0048-1D-UDD-1-5-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P199467
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-U1-1-35-0048-1D-UDD-1-5-W
Description: DEFINE 4-INCH DIRECT/INDIRECT WALL LED LUMINAIRE
UPLIGHT LL1-3500K, SATIN WHITE DIFFUSER
DOWNLIGHT LL1-3500K, SATIN WHITE DIFFUSER
Light Source: -
757G
Ballast/Driver: ELECTRONIC DRIVERS

Summary

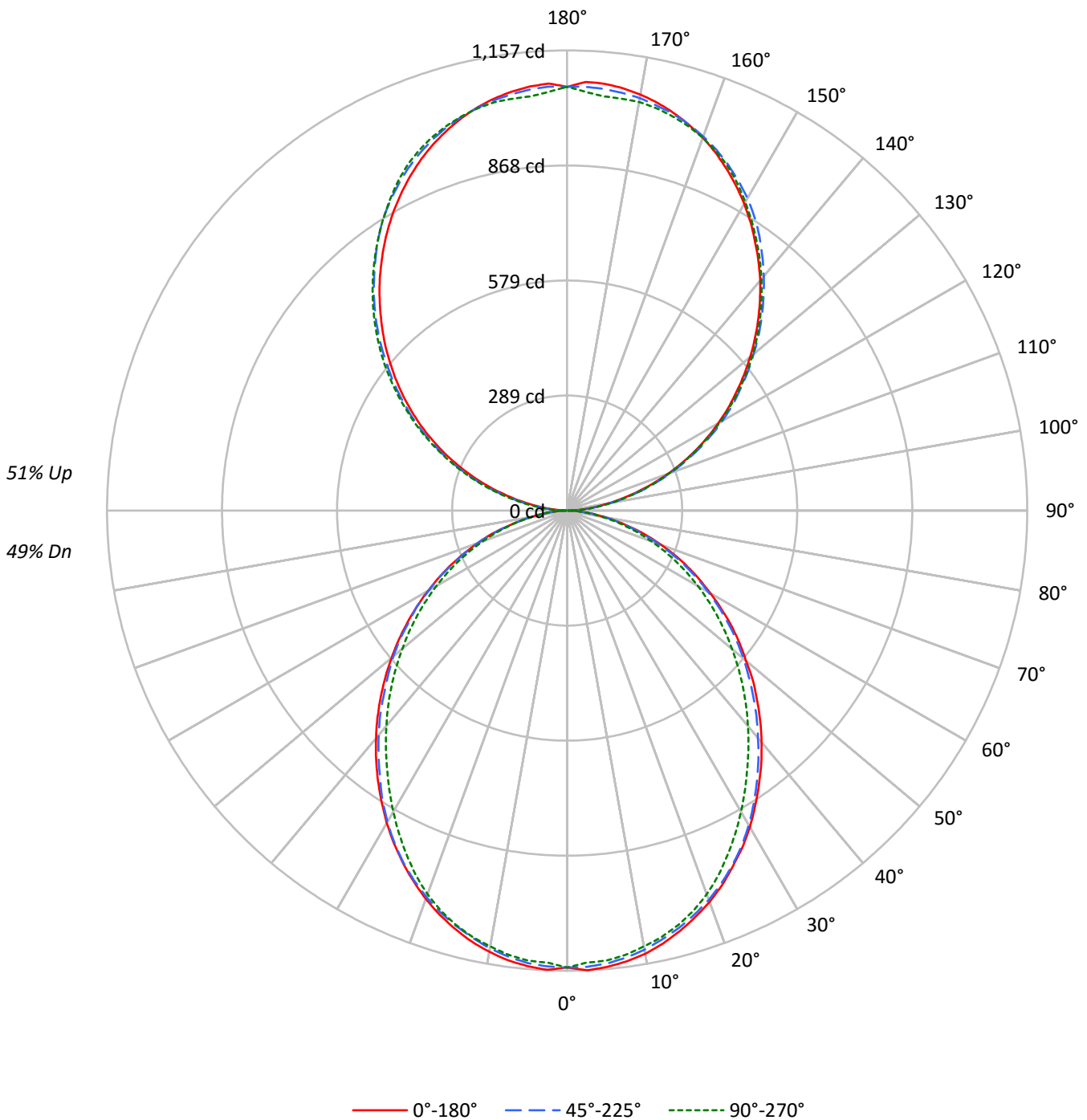
Lumens per Lamp: N/A
Luminaire Lumens: 5788.9 lumens
Efficiency: N/A
Efficacy: 111.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.14 / 1.28
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4.08' x H: 0.38')
CIE Type: General Diffuse

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

TEST NUMBER: P199467

CATALOG NUMBER: S124-DIW-U1-1-35-0048-1D-UDD-1-5-W

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	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°	9085	9085	9085
5°	9069	8207	9053
10°	8941	7456	8903
15°	8747	6786	8703
20°	8524	6130	8462
25°	8253	5466	8178
30°	7969	4841	7866
35°	7630	4265	7523
40°	7289	3755	7164
45°	6922	3286	6787
50°	6508	2844	6393
55°	6138	2432	5977
60°	5677	2038	5516
65°	5223	1653	5017
70°	4642	1272	4424
75°	3905	894	3620
80°	2932	544	2746
85°	1722	241	1629



TEST NUMBER: P199467

CATALOG NUMBER: S124-DIW-U1-1-35-0048-1D-UDD-1-5-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.2	1.9
10°-20°	304.9	5.3
20°-30°	446.7	7.7
30°-40°	511.9	8.8
40°-50°	504.7	8.7
50°-60°	435.0	7.5
60°-70°	317.2	5.5
70°-80°	173.0	3.0
80°-90°	45.4	0.8
90°-100°	54.8	0.9
100°-110°	198.6	3.4
110°-120°	351.7	6.1
120°-130°	467.5	8.1
130°-140°	525.7	9.1
140°-150°	516.9	8.9
150°-160°	436.3	7.5
160°-170°	289.4	5.0
170°-180°	100.9	1.7
0°-30°	859.8	14.9
0°-40°	1371.7	23.7
0°-60°	2311.5	39.9
0°-90°	2847.1	49.2
90°-120°	605.1	10.5
90°-150°	2115.3	36.5
90°-180°	2942.0	50.8
0°-180°	5788.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1149	1149	1149	1149	1149	
5°	1152	1143	1136	1142	1150	109
15°	1095	1086	1079	1081	1089	308
25°	986	984	955	975	977	454
35°	841	832	790	820	829	526
45°	676	662	624	651	663	521
55°	504	495	460	485	490	449
65°	334	326	301	318	321	330
75°	172	165	152	158	159	182
85°	39	40	37	38	37	44
90°	1	3	2	3	1	6
95°	46	51	49	46	35	50
105°	184	193	190	186	172	195
115°	355	364	358	353	340	351
125°	520	531	526	519	504	465
135°	679	692	686	680	659	524
145°	824	842	830	829	805	516
155°	948	958	955	948	931	437
165°	1035	1032	1026	1025	1022	292
175°	1077	1064	1045	1063	1070	102
180°	1066	1066	1066	1066	1066	



TEST NUMBER: P199467

CATALOG NUMBER: S124-DIW-U1-1-35-0048-1D-UDD-1-5-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1148.8	1148.8	1148.8	1148.8	1148.8	1148.8	1148.8	1148.8	1148.8
2.5°	1157.1	1143.9	1148.1	1145.3	1137.7	1145.3	1147.4	1143.3	1155.8
5°	1151.6	1139.1	1143.3	1139.1	1135.6	1138.4	1141.9	1137.0	1149.5
7.5°	1143.3	1130.1	1133.5	1130.1	1126.6	1129.4	1131.4	1127.3	1140.5
10°	1131.4	1117.6	1121.0	1116.9	1112.7	1115.5	1117.6	1113.4	1126.6
12.5°	1114.8	1101.6	1104.4	1101.6	1098.1	1098.8	1100.2	1096.0	1109.9
15°	1094.6	1081.4	1086.3	1083.5	1078.7	1081.4	1080.7	1075.9	1089.1
17.5°	1071.7	1059.2	1064.8	1062.0	1055.0	1059.2	1059.2	1051.6	1065.5
20°	1046.7	1033.5	1041.2	1034.2	1026.6	1030.7	1034.2	1025.2	1039.1
22.5°	1018.9	1005.0	1014.1	1001.6	993.2	998.1	1006.4	996.7	1009.2
25°	986.3	975.2	983.5	966.1	955.0	962.0	975.2	965.4	977.3
27.5°	954.3	943.2	950.2	930.7	915.4	924.5	941.1	932.8	943.2
30°	918.9	909.9	913.4	890.4	874.5	884.2	903.6	898.8	907.1
32.5°	880.0	873.1	873.1	848.8	832.1	843.2	864.0	862.7	868.2
35°	841.1	837.0	832.1	805.7	789.7	800.1	820.3	825.8	829.3
37.5°	801.5	798.8	789.7	764.0	748.7	759.9	778.6	786.9	789.0
40°	760.5	759.2	746.7	722.3	707.1	718.2	737.6	748.0	747.4
42.5°	718.9	720.3	705.0	681.4	666.1	677.2	695.3	709.2	705.7
45°	675.8	680.0	661.9	640.4	624.4	636.2	650.8	668.2	662.6
47.5°	634.1	639.0	620.2	598.0	582.7	595.2	609.8	628.6	620.2
50°	586.9	596.6	578.6	556.3	541.1	552.9	570.2	586.2	576.5
52.5°	545.9	552.9	536.9	515.4	500.8	510.5	527.9	543.8	533.4
55°	503.6	511.2	495.2	473.7	459.8	469.5	484.8	500.8	490.4
57.5°	459.1	466.7	452.2	432.7	419.5	429.9	445.9	457.0	447.3
60°	416.0	425.8	409.8	391.0	379.9	388.3	400.8	414.0	404.2
62.5°	374.4	383.4	368.1	350.8	340.3	348.0	361.2	371.6	362.6
65°	334.1	339.6	326.4	310.5	301.4	306.3	318.1	329.9	320.9
67.5°	293.1	298.7	285.5	271.6	262.5	267.4	277.1	288.2	279.9
70°	251.4	256.3	245.2	232.7	225.0	229.9	238.9	247.3	239.6
72.5°	211.8	215.3	204.9	195.2	189.6	193.1	199.3	207.0	203.5
75°	171.6	175.7	165.3	157.0	152.1	153.5	158.4	164.6	159.1
77.5°	133.4	137.5	129.2	122.9	120.2	120.9	124.3	129.2	122.2
80°	97.9	101.4	96.5	91.0	88.2	89.6	91.7	94.5	91.7
82.5°	66.0	69.5	66.0	62.5	60.4	61.8	62.5	63.9	61.8
85°	38.9	41.7	39.6	37.5	36.8	36.8	37.5	38.9	36.8
87.5°	17.4	19.4	18.1	16.7	14.6	15.3	16.0	17.4	16.0
90°	1.4	3.5	2.8	2.1	2.1	2.1	2.8	3.5	1.4
92.5°	20.8	23.6	24.3	22.2	22.2	21.5	20.1	19.4	12.5
95°	45.8	50.0	50.7	50.7	49.3	47.9	46.5	43.1	35.4
97.5°	74.3	79.2	80.6	79.2	79.9	78.5	75.0	71.5	63.9
100°	107.0	113.2	114.6	113.2	113.9	110.4	109.0	105.6	96.5
102.5°	143.1	150.7	151.4	150.0	150.0	147.2	145.9	141.7	132.7
105°	184.1	192.4	193.1	190.3	190.3	187.5	186.1	182.0	171.6
107.5°	225.7	234.1	234.1	231.3	231.3	229.2	226.4	223.7	213.2
110°	268.8	275.7	277.1	273.7	273.0	270.9	268.1	263.9	254.9



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CATALOG NUMBER: S124-DIW-U1-1-35-0048-1D-UDD-1-5-W

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	311.9	318.8	320.2	316.0	315.3	311.2	310.5	305.6	296.6
115°	354.9	361.9	364.0	359.1	357.7	352.8	352.8	348.0	339.6
117.5°	396.6	404.9	407.0	401.5	400.8	396.6	393.8	389.7	380.6
120°	438.3	448.7	450.1	443.8	443.1	438.3	436.9	431.3	422.3
122.5°	479.9	490.4	492.4	486.9	484.8	478.6	477.9	473.0	463.3
125°	519.5	531.3	531.3	528.6	526.5	521.6	518.8	513.3	503.6
127.5°	560.5	573.0	572.3	570.2	568.2	561.2	559.1	553.6	543.2
130°	600.8	611.9	611.9	610.5	609.1	602.9	599.4	593.9	582.0
132.5°	640.4	651.5	652.9	649.4	648.0	639.7	640.4	633.4	621.6
135°	679.3	689.0	692.5	686.9	686.2	677.2	680.0	671.0	659.1
137.5°	717.5	725.1	731.4	724.4	723.7	714.7	718.9	707.1	696.6
140°	755.0	761.2	769.6	761.2	759.9	751.5	755.7	743.2	734.2
142.5°	790.4	796.0	806.4	797.4	795.3	787.6	792.5	777.9	769.6
145°	824.4	828.6	842.5	832.8	830.0	823.1	829.3	811.3	805.0
147.5°	858.5	860.6	876.5	867.5	863.3	857.8	864.0	843.9	839.0
150°	890.4	890.4	906.4	899.5	896.0	889.7	893.9	874.5	871.0
152.5°	920.3	918.9	933.5	929.3	927.2	920.3	921.7	903.6	901.5
155°	948.1	945.3	958.5	956.4	955.0	948.1	948.1	930.0	930.7
157.5°	974.5	968.9	981.4	980.7	977.9	972.4	971.0	955.0	957.1
160°	997.4	992.5	1000.9	999.5	997.4	991.8	991.8	977.9	981.4
162.5°	1017.5	1011.3	1018.2	1014.1	1013.4	1007.1	1009.9	998.1	1003.0
165°	1034.9	1028.7	1032.1	1026.6	1025.9	1020.3	1025.2	1016.8	1022.4
167.5°	1050.2	1043.2	1042.5	1037.7	1036.3	1032.1	1037.7	1032.8	1039.1
170°	1062.0	1055.0	1053.0	1044.6	1043.2	1039.8	1048.1	1046.7	1052.3
172.5°	1071.0	1064.1	1059.2	1049.5	1044.6	1045.3	1056.4	1056.4	1062.7
175°	1077.3	1069.6	1064.1	1054.4	1045.3	1050.9	1062.7	1063.4	1070.3
177.5°	1078.7	1071.0	1066.2	1057.1	1053.7	1054.4	1066.9	1066.9	1074.5
180°	1065.5	1065.5	1065.5	1065.5	1065.5	1065.5	1065.5	1065.5	1065.5

(END OF REPORT)