

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: P199389

Luminaire Tested: **S122-DIW-U1-1-40-0048-1D-UDD-1-NA-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P199389
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P27883 P27986)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122-DIW-U1-1-40-0048-1D-UDD-1-NA-W
Description: DEFINE 2-INCH DIRECT/INDIRECT WALL LED LUMINAIRE
UPLIGHT LL1-4000K, NO LENS
DOWNLIGHT LL1-4000K, SATIN WHITE DIFFUSER
Light Source: -
757G
Ballast/Driver: ELECTRONIC DRIVERS

Summary

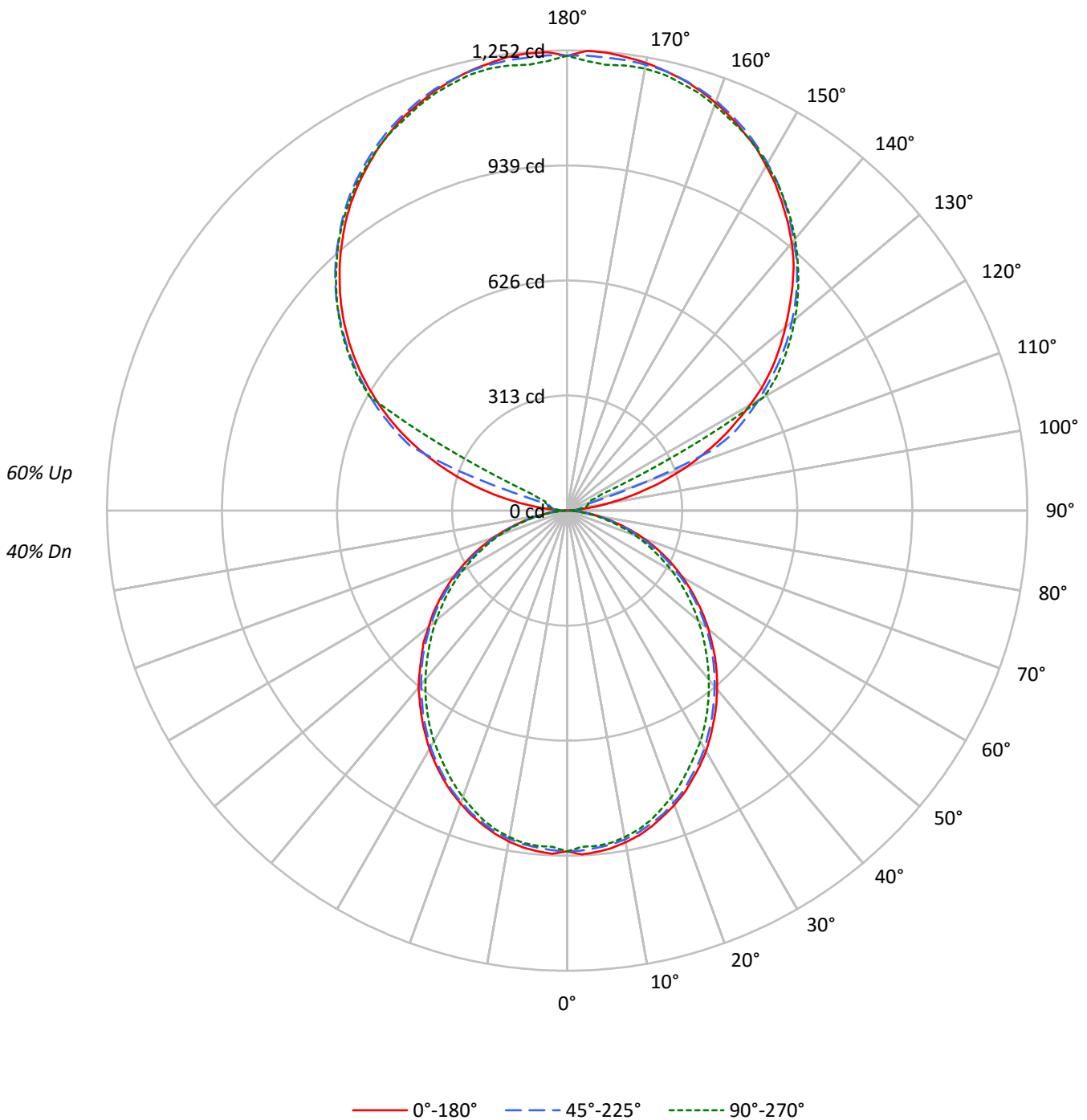
Lumens per Lamp: N/A
Luminaire Lumens: 5898.0 lumens
Efficiency: N/A
Efficacy: 113.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.17 / 1.31
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4.08' x H: 0.38')
CIE Type: General Diffuse

Input Watts (W): 52
Input Voltage (V): NR
Input Current (A_{in}): 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										
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	105	105	105	105	96	96	96	96	78	78	78	62	62	62	47	47	47	40																				
1	96	91	88	84	87	83	80	77	68	66	64	55	53	52	42	41	40	34																				
2	87	80	74	69	79	73	68	63	60	56	53	48	45	43	37	35	34	29																				
3	79	70	63	57	72	64	58	53	53	48	45	42	39	37	33	31	29	24																				
4	73	62	54	48	66	57	50	45	47	42	38	38	34	31	29	27	25	21																				
5	67	55	47	41	60	51	44	38	42	37	33	34	30	27	26	24	22	18																				
6	61	49	41	36	56	45	38	33	38	32	28	31	27	24	24	21	19	16																				
7	57	45	37	31	51	41	34	29	34	29	25	28	24	21	22	19	17	14																				
8	53	40	33	28	48	37	30	26	31	26	22	25	21	19	20	17	15	13																				
9	49	37	29	24	44	34	27	23	28	23	20	23	19	17	18	16	14	11																				
10	46	34	27	22	42	31	25	20	26	21	18	21	18	15	17	14	12	10																				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	14663	14663	14663
5°	14681	12146	14657
10°	14481	10372	14448
15°	14208	8921	14151
20°	13884	7677	13814
25°	13498	6625	13426
30°	13106	5758	12994
35°	12630	4982	12512
40°	12163	4285	12054
45°	11677	3666	11472
50°	11131	3110	10892
55°	10521	2604	10348
60°	9901	2135	9647
65°	9145	1677	8833
70°	8209	1260	7810
75°	6854	849	6394
80°	5109	494	4635
85°	3170	195	2665



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.4	1.5
10°-20°	247.4	4.2
20°-30°	364.9	6.2
30°-40°	425.6	7.2
40°-50°	426.5	7.2
50°-60°	373.1	6.3
60°-70°	274.5	4.7
70°-80°	148.8	2.5
80°-90°	38.1	0.6
90°-100°	30.7	0.5
100°-110°	139.0	2.4
110°-120°	404.0	6.8
120°-130°	631.2	10.7
130°-140°	680.5	11.5
140°-150°	643.1	10.9
150°-160°	524.4	8.9
160°-170°	341.3	5.8
170°-180°	117.6	2.0
0°-30°	699.8	11.9
0°-40°	1125.4	19.1
0°-60°	1924.9	32.6
0°-90°	2386.3	40.5
90°-120°	573.6	9.7
90°-150°	2528.4	42.9
90°-180°	3512.0	59.5
0°-180°	5898.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	927	927	927	927	927	
5°	932	921	916	921	931	88
15°	889	882	873	880	886	251
25°	807	799	778	797	802	372
35°	696	687	665	682	690	436
45°	570	560	533	554	560	439
55°	432	424	398	416	424	387
65°	292	281	261	272	282	289
75°	151	143	130	134	140	160
85°	36	34	29	29	30	40
90°	1	4	5	4	1	3
95°	30	24	28	29	52	42
105°	223	47	57	49	262	237
115°	461	500	102	517	493	454
125°	682	703	721	715	699	608
135°	868	885	890	893	875	669
145°	1020	1030	1031	1037	1024	639
155°	1136	1144	1136	1145	1137	524
165°	1215	1215	1203	1213	1212	343
175°	1250	1237	1217	1237	1248	119
180°	1238	1238	1238	1238	1238	



TEST NUMBER: P199389

CATALOG NUMBER: S122-DIW-U1-1-40-0048-1D-UDD-1-NA-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	927.1	927.1	927.1	927.1	927.1	927.1	927.1	927.1	927.1
2.5°	936.4	923.5	925.6	922.8	915.6	922.0	924.9	922.8	934.9
5°	932.1	919.2	921.3	917.7	915.6	917.7	920.6	917.7	930.6
7.5°	926.3	912.0	916.3	914.2	912.0	913.4	915.6	910.6	924.2
10°	916.3	902.0	908.4	904.1	902.0	903.4	907.0	899.8	914.2
12.5°	904.8	890.5	896.9	891.9	889.8	889.8	896.2	888.3	901.3
15°	889.1	877.6	881.9	876.9	873.3	875.4	880.5	874.7	885.5
17.5°	871.1	861.1	866.1	858.2	851.8	856.8	864.0	857.5	868.3
20°	852.5	841.0	846.0	835.3	829.6	833.9	843.2	838.2	848.2
22.5°	831.7	820.9	825.3	810.9	805.2	808.8	822.4	817.4	826.7
25°	806.6	798.0	798.7	784.4	777.9	782.2	796.6	793.7	802.3
27.5°	782.2	773.6	774.3	757.9	750.7	756.4	770.8	768.6	776.5
30°	755.7	747.8	747.1	730.6	724.9	728.5	742.8	742.8	749.2
32.5°	726.3	719.9	716.3	701.2	695.5	699.8	712.0	714.1	719.1
35°	696.2	691.9	686.9	672.5	664.6	670.4	681.9	684.7	689.7
37.5°	666.1	661.1	655.3	641.0	632.4	639.6	649.6	654.6	658.2
40°	634.5	630.9	624.5	610.2	599.4	606.6	618.0	623.8	628.8
42.5°	602.3	600.1	592.2	577.2	566.4	574.3	586.5	591.5	593.7
45°	570.0	567.1	560.0	544.2	532.7	541.3	554.2	559.2	560.0
47.5°	534.2	534.9	526.3	510.5	499.0	507.6	519.1	526.3	529.1
50°	501.9	502.6	492.6	476.8	465.3	471.8	485.4	492.6	491.1
52.5°	467.5	469.6	458.9	443.1	431.6	438.1	451.7	459.6	460.3
55°	431.6	435.2	423.7	408.0	397.9	404.4	415.9	425.2	424.5
57.5°	397.2	400.1	388.6	374.3	364.2	370.0	380.0	392.2	389.3
60°	362.8	365.7	353.5	339.1	330.5	333.4	344.9	354.9	353.5
62.5°	327.7	330.5	317.6	304.7	294.7	299.0	309.0	321.2	317.6
65°	292.5	294.7	281.1	269.6	261.0	265.3	272.5	285.4	282.5
67.5°	257.4	258.8	246.6	235.9	228.7	230.9	237.3	248.1	246.6
70°	222.3	223.7	212.2	202.2	195.7	197.9	202.9	212.9	211.5
72.5°	186.4	188.6	177.1	167.8	161.3	163.5	167.1	176.4	174.2
75°	150.6	152.0	143.4	136.2	130.5	131.2	134.1	141.2	140.5
77.5°	117.6	121.2	111.8	105.4	101.1	101.8	105.4	109.0	107.5
80°	85.3	89.6	83.2	78.2	74.6	73.8	76.7	79.6	77.4
82.5°	60.2	60.9	56.6	53.1	49.5	49.5	51.6	53.8	51.6
85°	35.8	37.3	33.7	30.8	28.7	28.0	29.4	31.5	30.1
87.5°	17.2	17.9	14.3	12.9	10.8	10.0	10.8	12.2	12.2
90°	1.4	3.6	3.6	4.3	5.0	5.0	4.3	4.3	0.7
92.5°	4.3	10.0	10.0	12.2	12.9	15.1	17.2	17.9	19.4
95°	30.1	21.5	24.4	26.5	28.0	30.1	28.7	26.5	52.3
97.5°	67.4	27.2	34.4	35.8	38.0	38.7	38.7	30.1	95.4
100°	112.6	31.5	40.9	46.6	48.0	48.0	43.7	67.4	147.0
102.5°	165.6	140.5	44.5	51.6	54.5	52.3	46.6	228.7	204.3
105°	223.0	253.1	47.3	54.5	57.4	55.9	48.8	281.8	262.4
107.5°	283.2	306.9	50.2	57.4	60.2	58.1	59.5	336.3	320.5
110°	343.4	363.5	225.1	59.5	62.4	59.5	311.9	391.5	378.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	400.8	421.6	423.0	63.1	63.8	68.1	463.9	447.4	436.6
115°	461.0	478.2	500.5	291.1	101.8	320.5	516.9	502.6	493.3
117.5°	516.2	532.7	549.9	511.9	390.0	557.1	567.9	557.1	547.8
120°	574.3	590.8	601.6	618.8	620.2	620.2	618.0	609.4	599.4
122.5°	631.7	642.4	651.0	668.2	674.0	667.5	666.1	658.2	650.3
125°	681.9	691.9	703.4	714.8	720.6	714.1	714.8	704.8	699.1
127.5°	729.2	737.8	752.8	760.0	765.7	758.6	761.4	750.7	746.4
130°	775.1	780.8	798.0	803.7	808.8	804.5	806.6	795.1	791.6
132.5°	820.2	828.1	842.5	844.6	850.3	843.9	851.8	836.0	834.6
135°	867.6	874.0	884.8	885.5	889.8	886.2	892.6	879.7	875.4
137.5°	912.0	914.9	924.2	921.3	927.8	922.0	931.4	918.5	915.6
140°	950.7	952.9	959.3	960.8	965.1	960.0	967.2	954.3	952.9
142.5°	986.6	989.4	995.2	994.5	999.5	994.5	1003.1	991.6	990.2
145°	1020.3	1024.6	1029.6	1027.4	1031.0	1028.2	1036.8	1024.6	1023.9
147.5°	1054.0	1055.4	1062.6	1059.0	1061.1	1057.6	1066.9	1056.8	1055.4
150°	1083.4	1086.2	1090.5	1086.2	1086.9	1084.8	1094.1	1085.5	1084.1
152.5°	1112.8	1112.0	1118.5	1109.9	1113.5	1109.9	1120.6	1112.0	1112.0
155°	1136.4	1135.7	1143.6	1134.3	1135.7	1132.8	1145.0	1135.0	1137.1
157.5°	1160.1	1156.5	1165.8	1156.5	1153.6	1155.8	1165.1	1155.8	1160.1
160°	1180.9	1177.3	1185.9	1175.9	1173.7	1175.1	1185.2	1176.6	1178.0
162.5°	1198.8	1193.8	1201.7	1190.9	1190.9	1188.8	1201.7	1193.1	1197.4
165°	1214.6	1208.8	1215.3	1204.5	1203.1	1201.7	1213.1	1207.4	1211.7
167.5°	1226.0	1220.3	1226.0	1213.9	1215.3	1212.4	1223.9	1220.3	1225.3
170°	1236.8	1229.6	1231.8	1221.0	1221.0	1218.9	1231.1	1227.5	1234.6
172.5°	1244.0	1236.1	1236.1	1223.9	1221.0	1222.5	1235.4	1234.6	1244.7
175°	1250.4	1239.7	1236.8	1225.3	1217.4	1224.6	1236.8	1239.0	1248.3
177.5°	1251.9	1241.8	1239.0	1226.0	1223.9	1224.6	1239.7	1240.4	1248.3
180°	1237.5	1237.5	1237.5	1237.5	1237.5	1237.5	1237.5	1237.5	1237.5

(END OF REPORT)