

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1058526

Luminaire Tested: S122RDR-H865D830-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058526
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-55)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H865D830-X4F0-XX-UDD-WVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

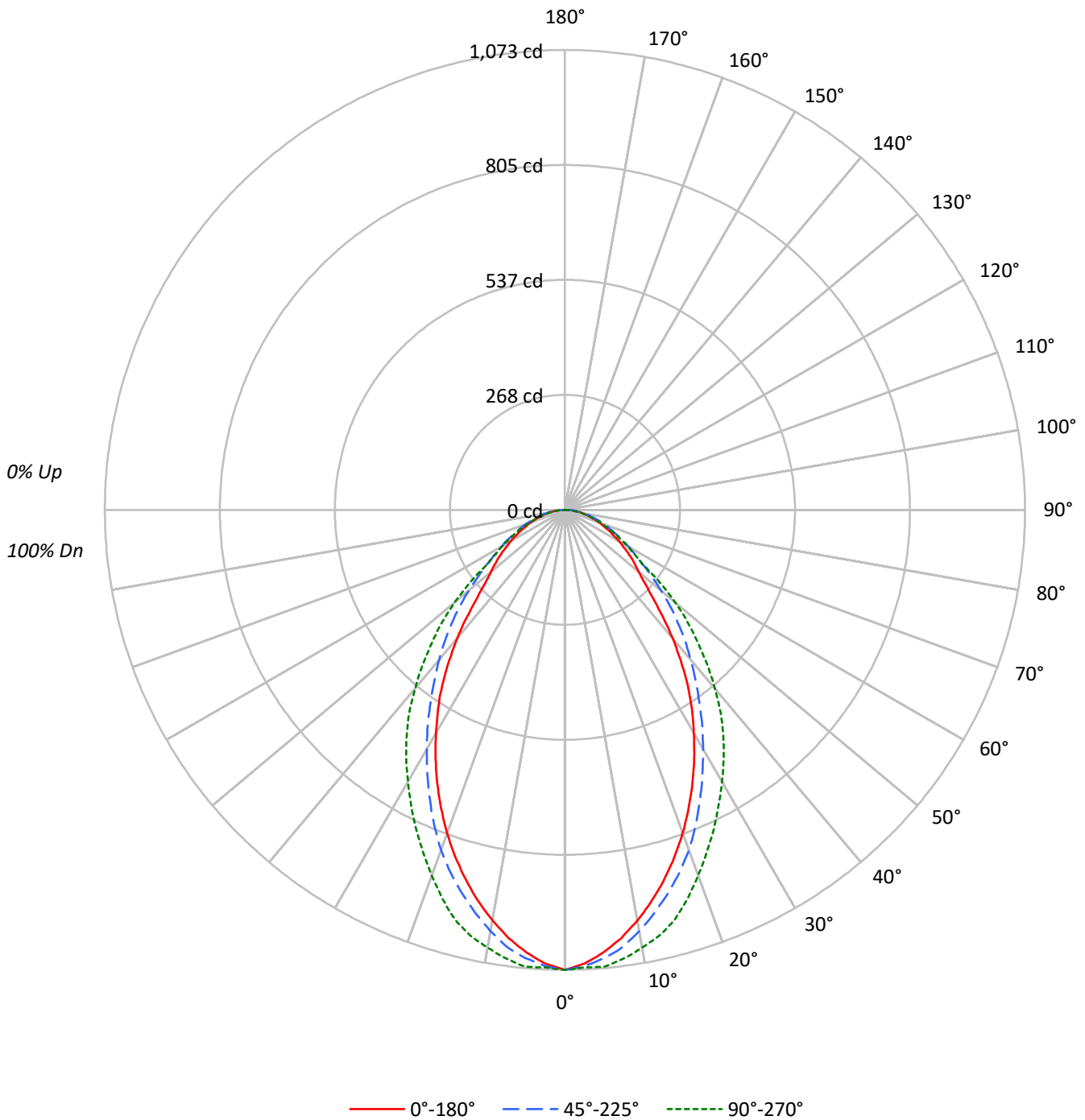
Lumens per Lamp: N/A
Luminaire Lumens: 1749.6 lumens
Efficiency: N/A
Efficacy: 56.1 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
Input Voltage (V): 120
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: 24 FT

TEST NUMBER: P1058526

CATALOG NUMBER: S122RDR-H865D830-X4F0-XX-UDD-WVL-W

Luminous Intensity Polar Plot





TEST NUMBER: P1058526

CATALOG NUMBER: S122RDR-H865D830-X4F0-XX-UDD-WVL-W

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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				
1	110	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87				
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76				
3	94	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	68	67				
4	88	77	69	64	85	76	69	63	73	67	62	71	66	62	69	65	61	59				
5	81	70	62	56	80	69	62	56	67	60	55	65	59	55	63	58	54	52				
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47				
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	44	43				
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	41	39				
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36				
10	59	47	40	35	58	46	40	35	46	39	35	45	39	35	44	38	34	33				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19803	19803	19803
5°	19195	19451	19816
10°	18227	18703	19438
15°	17063	17703	18914
20°	15772	16587	17834
25°	14331	15178	16728
30°	12810	13720	15614
35°	11229	12295	14505
40°	9397	10979	13092
45°	7529	9726	11443
50°	6459	8382	9608
55°	5903	7129	7090
60°	5366	6303	6174
65°	4886	5641	5392
70°	4483	5169	4796
75°	4199	4770	4199
80°	3921	4410	3677
85°	3917	4637	3176

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 11443 cd/sqm



TEST NUMBER: P1058526

CATALOG NUMBER: S122RDR-H865D830-X4F0-XX-UDD-WVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.1	5.7
10°-20°	262.3	15.0
20°-30°	346.0	19.8
30°-40°	348.4	19.9
40°-50°	283.5	16.2
50°-60°	193.3	11.0
60°-70°	125.5	7.2
70°-80°	69.1	3.9
80°-90°	22.5	1.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	707.3	40.4
0°-40°	1055.7	60.3
0°-60°	1532.5	87.6
0°-90°	1749.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1749.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1073	1073	1073	1073	1073	
5°	1036	1056	1050	1059	1070	97
15°	893	916	927	965	990	250
25°	704	727	746	779	822	323
35°	498	524	546	593	644	310
45°	288	324	373	405	438	227
55°	184	202	222	223	220	164
65°	112	133	129	122	124	111
75°	59	73	67	60	59	62
85°	18	24	22	17	15	20
90°	0	0	0	0	0	



TEST NUMBER: P1058526

CATALOG NUMBER: S122RDR-H865D830-X4F0-XX-UDD-WVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1073.2	1073.2	1073.2	1073.2	1073.2
2.5°	1059.4	1076.7	1065.1	1066.3	1068.6
5°	1036.3	1055.9	1050.1	1059.4	1069.8
7.5°	1007.4	1027.1	1029.4	1043.2	1055.9
10°	972.8	994.7	998.2	1019.0	1037.4
12.5°	934.7	959.0	963.6	993.6	1017.8
15°	893.2	916.3	926.7	964.7	990.1
17.5°	849.3	871.3	887.4	922.0	950.9
20°	803.2	824.0	844.7	875.9	908.2
22.5°	753.6	776.6	796.3	827.4	864.3
25°	703.9	727.0	745.5	778.9	821.6
27.5°	653.2	676.2	694.7	730.5	776.6
30°	601.2	625.5	643.9	684.3	732.8
32.5°	550.5	574.7	595.5	638.2	688.9
35°	498.5	523.9	545.8	593.2	643.9
37.5°	443.1	472.0	499.7	547.0	596.6
40°	390.1	422.4	455.8	499.7	543.5
42.5°	337.0	372.7	414.3	451.2	491.6
45°	288.5	324.3	372.7	405.1	438.5
47.5°	250.4	280.4	332.4	358.9	388.9
50°	225.0	245.8	292.0	312.7	334.7
52.5°	204.3	221.6	253.9	267.7	279.3
55°	183.5	201.9	221.6	222.7	220.4
57.5°	162.7	183.5	193.9	185.8	190.4
60°	145.4	166.2	170.8	162.7	167.3
62.5°	126.9	150.0	150.0	141.9	144.2
65°	111.9	132.7	129.2	122.3	123.5
67.5°	96.9	117.7	111.9	105.0	105.0
70°	83.1	102.7	95.8	88.9	88.9
72.5°	70.4	86.5	81.9	73.9	72.7
75°	58.9	72.7	66.9	60.0	58.9
77.5°	47.3	58.9	54.2	48.5	46.2
80°	36.9	47.3	41.5	36.9	34.6
82.5°	27.7	35.8	31.2	26.5	24.2
85°	18.5	24.2	21.9	17.3	15.0
87.5°	9.2	16.2	13.8	11.5	9.2
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1058526
 CATALOG NUMBER: S122RDR-H865D830-X4F0-XX-UDD-WVL-W

CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	17.09	18.53	17.46	18.84	19.16	17.34	18.78	17.71	19.09	19.41
	3H	18.62	19.91	19.00	20.24	20.60	18.70	19.99	19.08	20.31	20.68
	4H	19.18	20.39	19.58	20.74	21.12	19.18	20.39	19.58	20.73	21.12
	6H	19.61	20.72	20.02	21.09	21.48	19.53	20.64	19.94	21.01	21.40
	8H	19.76	20.82	20.19	21.21	21.61	19.64	20.69	20.06	21.08	21.49
	12H	19.87	20.88	20.30	21.27	21.70	19.70	20.72	20.14	21.10	21.53
4H	2H	17.66	18.87	18.07	19.22	19.60	17.86	19.07	18.26	19.42	19.80
	3H	19.47	20.47	19.88	20.87	21.27	19.44	20.44	19.85	20.84	21.24
	4H	20.21	21.11	20.64	21.53	21.97	20.03	20.93	20.47	21.35	21.79
	6H	20.80	21.58	21.26	22.02	22.48	20.50	21.28	20.96	21.73	22.19
	8H	21.01	21.74	21.47	22.18	22.65	20.65	21.38	21.12	21.83	22.29
	12H	21.17	21.82	21.66	22.30	22.77	20.76	21.41	21.24	21.89	22.36
8H	4H	20.48	21.20	20.94	21.65	22.12	20.32	21.05	20.79	21.50	21.97
	6H	21.23	21.83	21.73	22.33	22.80	20.91	21.51	21.41	22.01	22.49
	8H	21.56	22.10	22.07	22.61	23.10	21.13	21.67	21.65	22.19	22.68
	12H	21.84	22.32	22.35	22.81	23.38	21.32	21.79	21.83	22.29	22.85
12H	4H	20.49	21.14	20.97	21.62	22.09	20.36	21.01	20.84	21.49	21.96
	6H	21.28	21.82	21.79	22.33	22.82	20.98	21.52	21.50	22.03	22.52
	8H	21.67	22.15	22.18	22.64	23.21	21.27	21.74	21.78	22.24	22.80