

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: P1058523

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058523
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-56)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H865D830-X4F0-XX-UDD-SVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

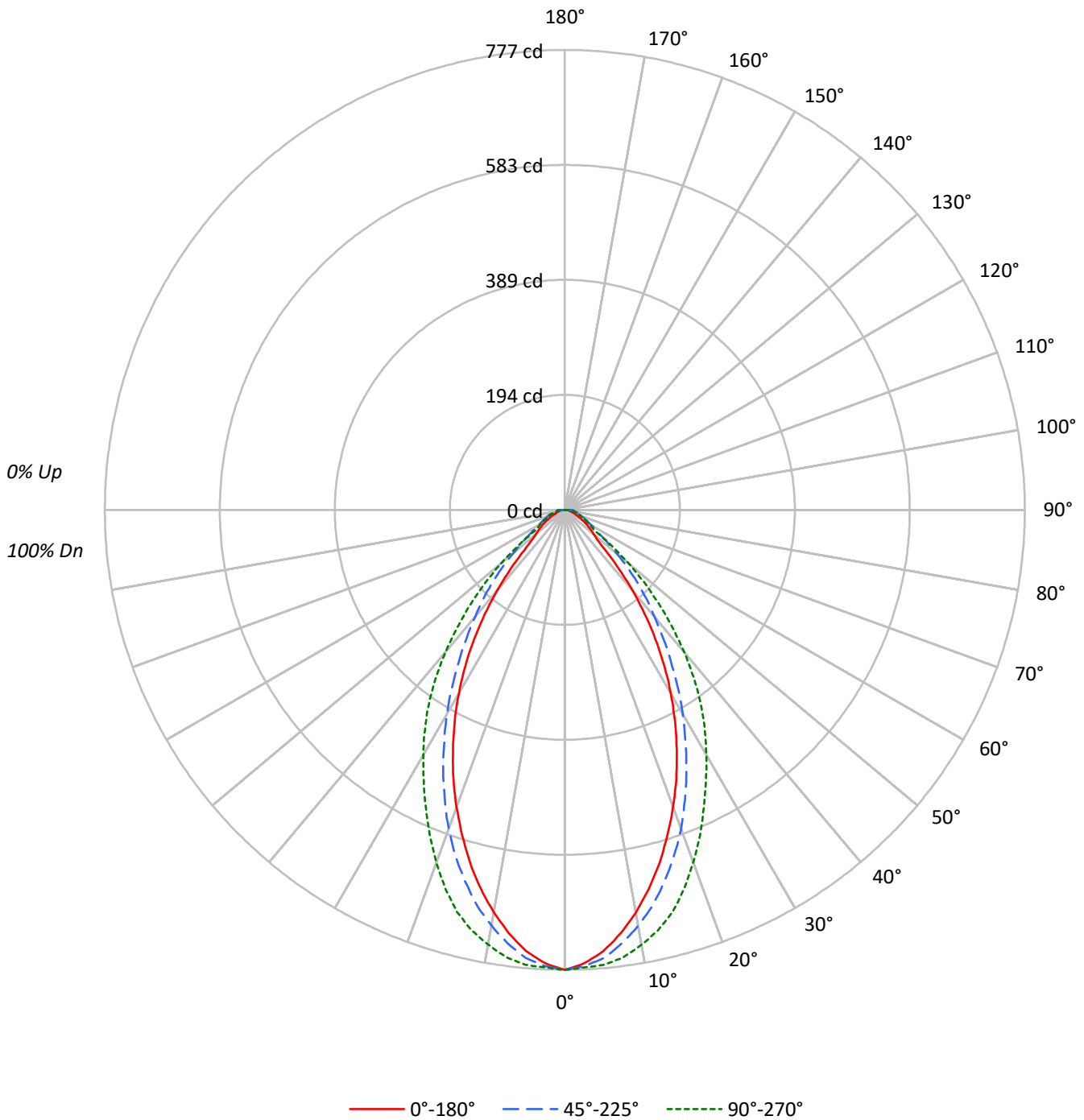
Lumens per Lamp: N/A
Luminaire Lumens: 942.6 lumens
Efficiency: N/A
Efficacy: 30.2 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 0.98 / 0.95
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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

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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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89				89
2	104	98	93	88	102	96	91	87	93	89	85	90	86	84	87	84	82	80				80
3	97	89	83	78	95	88	82	77	85	80	76	83	78	75	80	77	74	72				72
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65				65
5	86	75	68	63	84	74	68	63	72	67	62	71	65	61	69	64	61	59				59
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54				54
7	76	65	57	52	74	64	57	52	62	56	52	61	56	52	60	55	51	50				50
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46				46
9	67	56	49	45	66	56	49	45	55	49	44	54	48	44	53	48	44	42				42
10	64	53	46	41	63	52	46	41	51	45	41	50	45	41	50	45	41	39				39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14339	14339	14339
5°	13861	14074	14289
10°	12938	13371	13976
15°	11802	12419	13434
20°	10498	11270	12448
25°	9099	9897	11308
30°	7628	8489	10187
35°	6008	7024	9026
40°	4283	5675	7537
45°	2531	4491	5845
50°	1823	3250	3979
55°	1522	2339	2007
60°	1236	1875	1705
65°	1009	1664	1563
70°	874	1619	1494
75°	820	1647	1483
80°	861	1966	1594
85°	1228	3176	1948

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5845 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.3	7.6
10°-20°	183.1	19.4
20°-30°	225.9	24.0
30°-40°	200.9	21.3
40°-50°	128.3	13.6
50°-60°	61.6	6.5
60°-70°	36.2	3.8
70°-80°	23.1	2.4
80°-90°	12.3	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°	480.3	51.0
0°-40°	681.2	72.3
0°-60°	871.1	92.4
0°-90°	942.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	942.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	777	777	777	777	777	
5°	748	762	760	764	771	70
15°	618	633	650	680	703	172
25°	447	464	486	521	555	205
35°	267	288	312	359	401	166
45°	97	126	172	200	224	81
55°	47	61	73	70	62	43
65°	23	42	38	35	36	23
75°	12	25	23	22	21	13
85°	6	14	15	13	9	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	777.1	777.1	777.1	777.1	777.1
2.5°	766.7	779.4	771.4	771.4	773.7
5°	748.3	762.1	759.8	764.4	771.4
7.5°	721.7	736.7	739.0	751.7	762.1
10°	690.5	706.7	713.6	732.1	745.9
12.5°	655.9	672.0	684.7	707.8	727.5
15°	617.8	632.8	650.1	680.1	703.2
17.5°	576.2	595.8	613.2	644.3	670.9
20°	534.6	553.1	573.9	603.9	633.9
22.5°	491.9	509.2	530.0	561.2	595.8
25°	446.9	464.2	486.1	520.8	555.4
27.5°	403.0	420.3	441.1	479.2	516.2
30°	358.0	375.3	398.4	437.6	478.1
32.5°	312.9	331.4	354.5	397.2	439.9
35°	266.7	287.5	311.8	359.1	400.7
37.5°	221.7	242.5	272.5	318.7	358.0
40°	177.8	202.1	235.6	277.1	312.9
42.5°	135.1	161.7	203.2	236.7	267.9
45°	97.0	125.9	172.1	199.8	224.0
47.5°	73.9	94.7	142.0	164.0	181.3
50°	63.5	76.2	113.2	129.3	138.6
52.5°	55.4	67.0	90.1	98.2	98.2
55°	47.3	61.2	72.7	70.4	62.4
57.5°	40.4	55.4	60.0	50.8	53.1
60°	33.5	50.8	50.8	45.0	46.2
62.5°	27.7	47.3	43.9	39.3	40.4
65°	23.1	41.6	38.1	34.6	35.8
67.5°	18.5	37.0	33.5	31.2	31.2
70°	16.2	33.5	30.0	27.7	27.7
72.5°	13.9	28.9	26.6	24.2	24.2
75°	11.5	25.4	23.1	21.9	20.8
77.5°	10.4	21.9	20.8	18.5	17.3
80°	8.1	18.5	18.5	17.3	15.0
82.5°	6.9	16.2	16.2	15.0	12.7
85°	5.8	13.9	15.0	12.7	9.2
87.5°	4.6	12.7	12.7	10.4	6.9
90°	0.0	0.0	0.0	0.0	0.0



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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	10.92	12.20	11.29	12.51	12.83	10.71	11.99	11.08	12.30	12.62
	3H	12.16	13.29	12.54	13.62	13.99	12.31	13.44	12.69	13.77	14.14
	4H	12.61	13.67	13.01	14.02	14.40	13.02	14.08	13.42	14.43	14.82
	6H	12.99	13.96	13.40	14.33	14.73	13.67	14.65	14.09	15.02	15.41
	8H	13.14	14.06	13.57	14.46	14.86	14.00	14.92	14.43	15.32	15.72
	12H	13.30	14.18	13.73	14.57	15.00	14.30	15.18	14.73	15.56	15.99
4H	2H	11.47	12.53	11.87	12.88	13.26	11.31	12.36	11.71	12.72	13.10
	3H	13.17	14.04	13.58	14.44	14.85	13.14	14.01	13.56	14.42	14.82
	4H	13.96	14.75	14.40	15.16	15.61	14.01	14.80	14.45	15.22	15.66
	6H	14.61	15.28	15.07	15.73	16.20	14.86	15.54	15.32	15.98	16.45
	8H	14.86	15.49	15.33	15.94	16.41	15.28	15.92	15.75	16.36	16.84
	12H	15.10	15.66	15.59	16.15	16.62	15.68	16.24	16.17	16.73	17.20
8H	4H	14.38	15.01	14.85	15.46	15.93	14.43	15.07	14.90	15.51	15.99
	6H	15.36	15.88	15.86	16.38	16.86	15.52	16.04	16.02	16.54	17.02
	8H	15.85	16.32	16.37	16.83	17.33	16.11	16.58	16.63	17.09	17.59
	12H	16.36	16.77	16.87	17.26	17.84	16.71	17.12	17.23	17.62	18.19
12H	4H	14.45	15.01	14.93	15.49	15.97	14.51	15.07	15.00	15.55	16.03
	6H	15.53	16.00	16.05	16.51	17.00	15.68	16.15	16.21	16.67	17.16
	8H	16.17	16.58	16.68	17.07	17.65	16.40	16.81	16.91	17.30	17.87