

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: P1058533

Luminaire Tested: S122RDR-H865D835-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058533
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-19)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H865D835-X4F0-XX-UDD-WVL-B
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

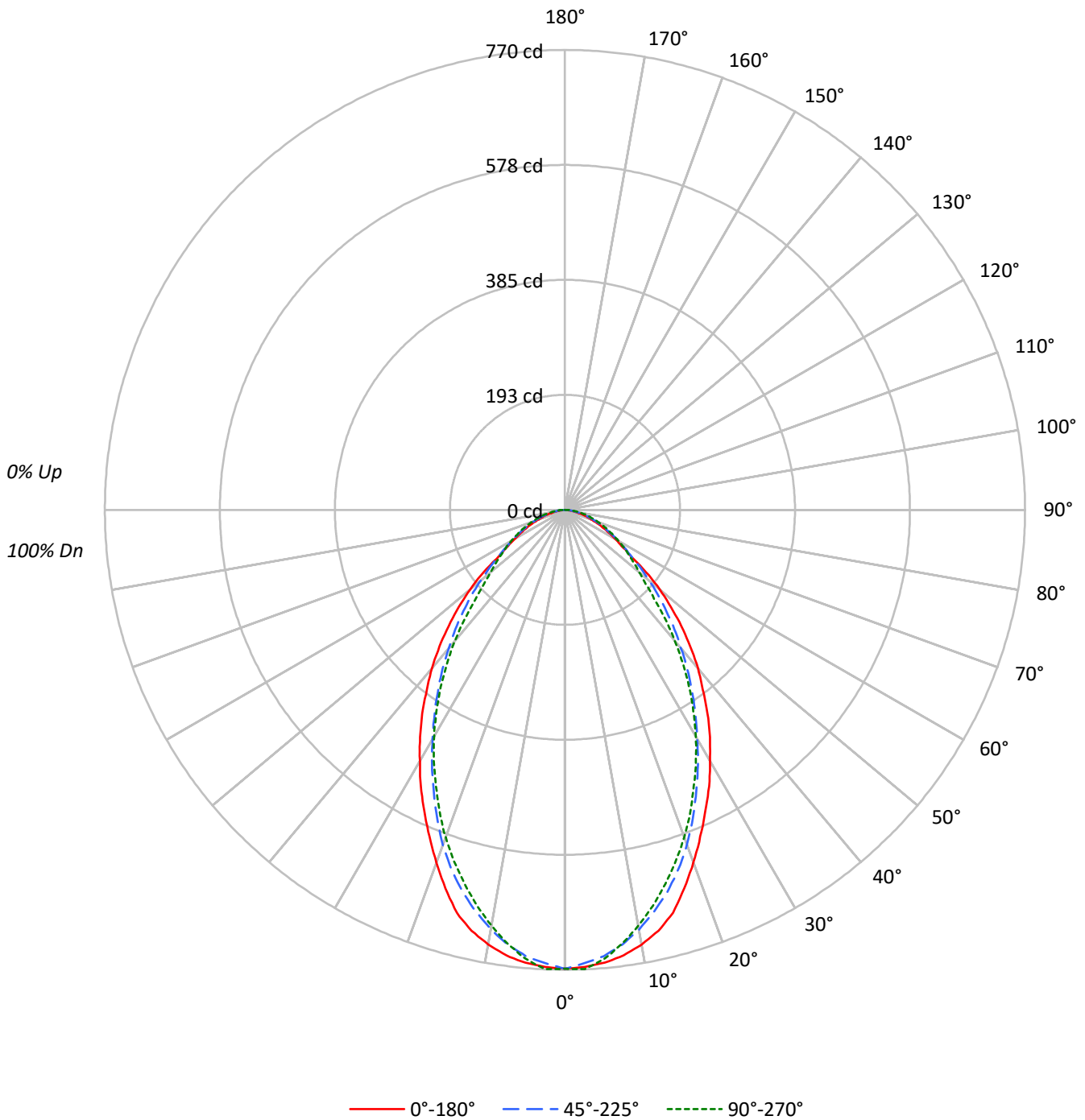
Lumens per Lamp: N/A
Luminaire Lumens: 1166.8 lumens
Efficiency: N/A
Efficacy: 37.4 lumens/watt
Spacing Criteria (0/90/45): 1 / 0.92 / 1.02
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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: P1058533

CATALOG NUMBER: S122RDR-H865D835-X4F0-XX-UDD-WVL-B

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	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88				88
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77				77
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68				68
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61				61
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54				54
6	77	66	58	52	75	65	57	52	63	56	52	61	56	51	60	55	51	49				49
7	72	60	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	44				44
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41				41
9	64	52	45	40	63	51	44	39	50	44	39	49	43	39	48	43	39	37				37
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34				34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14177	14177	14177
5°	14096	13890	13981
10°	13845	13363	13249
15°	13346	12645	12387
20°	12348	11723	11460
25°	11332	10585	10388
30°	10349	9437	9332
35°	9371	8351	8157
40°	8339	7279	6896
45°	7184	6258	5522
50°	5937	5268	4636
55°	4292	4369	4173
60°	3565	3746	3794
65°	3043	3257	3471
70°	2509	2903	3167
75°	2096	2445	2880
80°	1562	1955	2603
85°	508	1037	2329

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7184 cd/sqm

TEST NUMBER: P1058533

CATALOG NUMBER: S122RDR-H865D835-X4F0-XX-UDD-WVL-B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.0	6.1
10°-20°	187.0	16.0
20°-30°	242.1	20.7
30°-40°	237.4	20.3
40°-50°	186.9	16.0
50°-60°	122.5	10.5
60°-70°	74.6	6.4
70°-80°	37.3	3.2
80°-90°	8.0	0.7
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°	500.1	42.9
0°-40°	737.5	63.2
0°-60°	1046.9	89.7
0°-90°	1166.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1166.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	768	768	768	768	768	
5°	761	761	750	755	755	72
15°	699	689	662	653	648	195
25°	557	538	520	518	510	256
35°	416	393	371	370	362	259
45°	275	258	240	223	212	212
55°	133	141	136	131	130	127
65°	70	71	75	78	80	69
75°	29	31	34	39	40	31
85°	2	4	5	9	11	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	768.3	768.3	768.3	768.3	768.3
2.5°	765.8	767.1	759.7	767.1	769.5
5°	761.0	761.0	749.9	754.8	754.8
7.5°	752.4	751.2	734.0	734.0	732.8
10°	738.9	734.0	713.2	709.6	707.1
12.5°	721.8	713.2	688.8	682.7	679.0
15°	698.6	688.8	661.9	653.3	648.4
17.5°	664.3	654.5	631.3	621.5	616.6
20°	628.8	614.1	597.0	588.5	583.6
22.5°	592.1	575.0	559.1	553.0	548.1
25°	556.6	538.3	519.9	517.5	510.2
27.5°	522.4	500.4	482.0	480.8	474.7
30°	485.7	462.4	442.9	444.1	438.0
32.5°	451.4	429.4	406.2	407.4	400.1
35°	416.0	392.7	370.7	369.5	362.1
37.5°	379.3	357.2	336.4	331.5	324.2
40°	346.2	324.2	302.2	293.6	286.3
42.5°	310.7	291.2	271.6	258.1	248.4
45°	275.3	258.1	239.8	222.7	211.6
47.5°	241.0	227.6	211.6	190.9	183.5
50°	206.8	197.0	183.5	165.2	161.5
52.5°	171.3	167.6	159.0	146.8	145.6
55°	133.4	140.7	135.8	130.9	129.7
57.5°	112.6	113.8	117.4	116.2	116.2
60°	96.6	96.6	101.5	102.8	102.8
62.5°	82.0	83.2	88.1	90.5	90.5
65°	69.7	71.0	74.6	78.3	79.5
67.5°	57.5	59.9	63.6	67.3	68.5
70°	46.5	48.9	53.8	57.5	58.7
72.5°	37.9	39.1	44.0	47.7	48.9
75°	29.4	30.6	34.3	39.1	40.4
77.5°	20.8	23.2	26.9	30.6	33.0
80°	14.7	15.9	18.4	23.2	24.5
82.5°	8.6	9.8	12.2	15.9	17.1
85°	2.4	3.7	4.9	8.6	11.0
87.5°	0.0	0.0	0.0	2.4	4.9
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	15.34	16.73	15.70	17.05	17.36	15.51	16.91	15.88	17.22	17.54
	3H	16.47	17.71	16.85	18.04	18.41	16.97	18.22	17.35	18.55	18.91
	4H	16.82	17.98	17.22	18.33	18.71	17.52	18.68	17.92	19.03	19.41
	6H	17.00	18.07	17.42	18.44	18.84	17.93	19.00	18.34	19.37	19.76
	8H	17.03	18.05	17.46	18.44	18.84	18.06	19.07	18.48	19.46	19.87
	12H	17.02	17.99	17.45	18.37	18.80	18.14	19.11	18.57	19.49	19.92
4H	2H	15.79	16.96	16.20	17.31	17.69	15.94	17.10	16.34	17.45	17.83
	3H	17.13	18.09	17.54	18.49	18.89	17.61	18.57	18.02	18.97	19.37
	4H	17.58	18.43	18.01	18.85	19.29	18.28	19.14	18.71	19.55	19.99
	6H	17.85	18.59	18.31	19.04	19.50	18.81	19.55	19.27	20.00	20.46
	8H	17.89	18.59	18.36	19.03	19.50	18.98	19.67	19.45	20.12	20.59
	12H	17.89	18.50	18.37	18.98	19.46	19.10	19.72	19.58	20.20	20.67
8H	4H	17.79	18.48	18.26	18.93	19.40	18.43	19.12	18.89	19.57	20.03
	6H	18.14	18.71	18.64	19.20	19.68	19.06	19.63	19.56	20.12	20.60
	8H	18.22	18.73	18.73	19.24	19.73	19.29	19.80	19.81	20.31	20.80
	12H	18.23	18.68	18.74	19.18	19.74	19.48	19.93	19.99	20.42	20.99
12H	4H	17.80	18.42	18.29	18.90	19.37	18.41	19.03	18.90	19.51	19.98
	6H	18.16	18.67	18.68	19.19	19.68	19.05	19.56	19.57	20.07	20.57
	8H	18.28	18.73	18.79	19.22	19.79	19.33	19.78	19.84	20.27	20.84