

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: P1058530

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058530
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-20)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H865D835-X4F0-XX-UDD-SVL-B
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

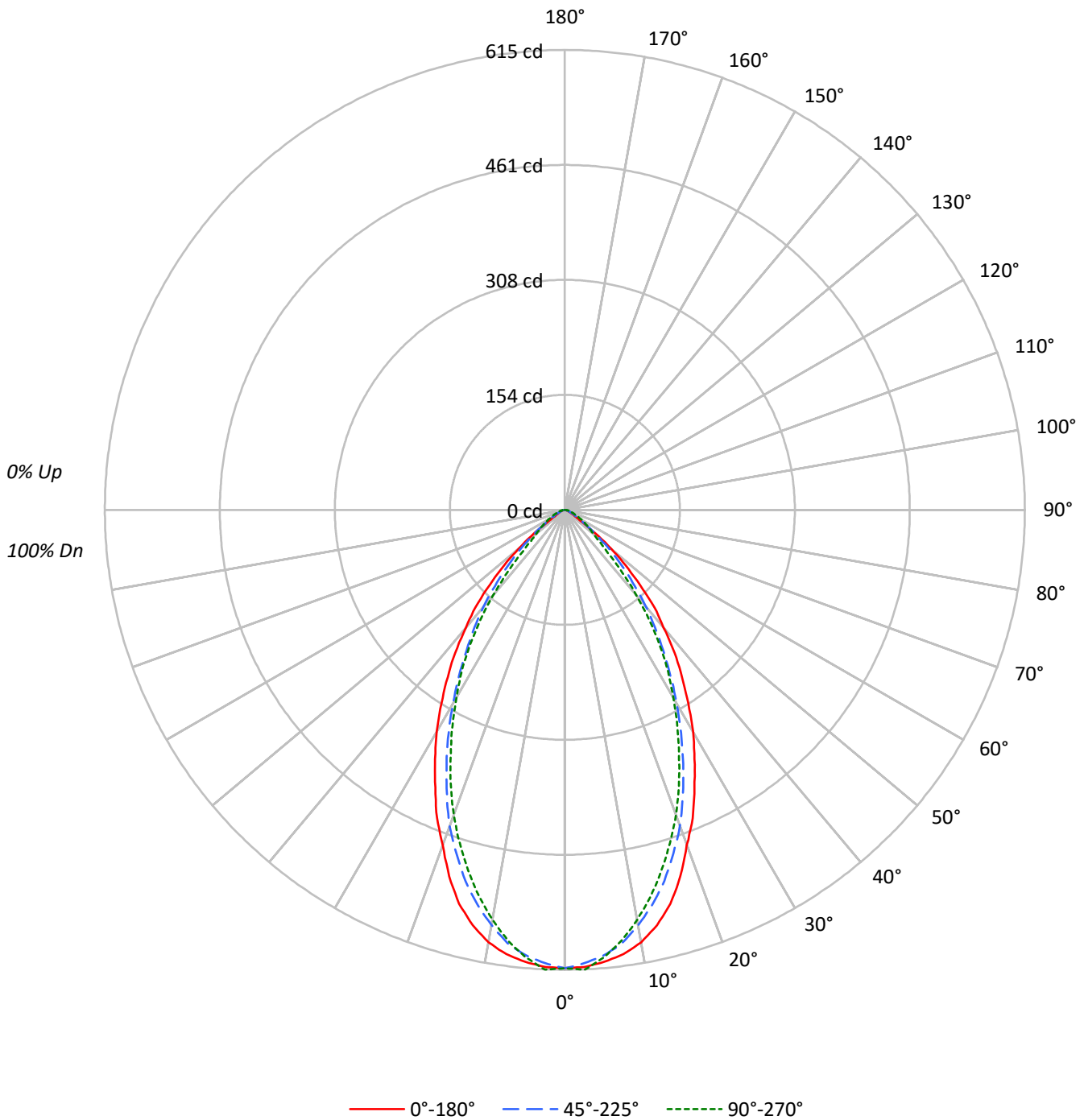
Lumens per Lamp: N/A
Luminaire Lumens: 659.1 lumens
Efficiency: N/A
Efficacy: 21.1 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 0.85 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	113	110	107	104	110	107	105	103	103	101	99	100	98	96	96	95	94	92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84
3	100	93	87	82	98	91	86	82	88	84	80	86	82	79	84	80	78	76
4	94	85	79	74	92	84	78	74	82	77	73	80	76	72	78	74	71	70
5	88	79	72	68	87	78	72	67	76	71	67	74	70	66	73	69	65	64
6	83	73	67	62	82	72	66	62	71	65	61	69	64	61	68	64	60	59
7	79	68	62	57	77	68	61	57	66	60	56	65	60	56	64	59	56	54
8	74	64	57	53	73	63	57	52	62	56	52	61	56	52	60	55	52	50
9	70	60	53	49	69	59	53	49	58	52	48	57	52	48	56	52	48	47
10	67	56	50	45	66	56	49	45	55	49	45	54	49	45	53	48	45	44

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11310	11310	11310
5°	11240	11080	11125
10°	11002	10566	10429
15°	10423	9815	9535
20°	9369	8840	8528
25°	8344	7621	7348
30°	7298	6360	6177
35°	6145	5154	4987
40°	4950	4066	3594
45°	3703	2936	2140
50°	2317	1898	1404
55°	788	1023	1142
60°	450	631	904
65°	319	428	694
70°	264	329	529
75°	171	264	435
80°	128	255	393
85°	0	0	254

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3703 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.5	8.6
10°-20°	144.6	21.9
20°-30°	174.1	26.4
30°-40°	148.8	22.6
40°-50°	87.2	13.2
50°-60°	31.5	4.8
60°-70°	11.2	1.7
70°-80°	4.5	0.7
80°-90°	0.8	0.1
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°	375.2	56.9
0°-40°	524.0	79.5
0°-60°	642.7	97.5
0°-90°	659.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	659.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	613	613	613	613	613	
5°	607	608	598	601	601	57
15°	546	537	514	504	499	152
25°	410	393	374	368	361	188
35°	273	252	229	226	221	170
45°	142	127	112	94	82	109
55°	24	34	32	33	36	30
65°	7	9	10	14	16	8
75°	2	4	4	5	6	3
85°	0	0	0	1	1	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	612.9	612.9	612.9	612.9	612.9
2.5°	611.7	612.9	606.8	612.9	615.3
5°	606.8	608.0	598.2	600.6	600.6
7.5°	599.4	598.2	584.7	582.3	581.1
10°	587.2	583.5	563.9	560.3	556.6
12.5°	568.8	561.5	540.7	534.6	529.7
15°	545.6	537.0	513.8	504.0	499.1
17.5°	513.8	504.0	482.0	472.2	467.3
20°	477.1	467.3	450.2	439.2	434.3
22.5°	446.5	430.6	412.3	404.9	398.8
25°	409.8	392.7	374.3	368.2	360.9
27.5°	375.6	354.8	336.4	331.5	325.4
30°	342.5	320.5	298.5	298.5	289.9
32.5°	307.1	286.3	263.0	261.8	256.9
35°	272.8	252.0	228.8	226.3	221.4
37.5°	241.0	220.2	198.2	190.8	184.7
40°	205.5	187.2	168.8	156.6	149.2
42.5°	177.4	156.6	138.2	123.6	113.8
45°	141.9	127.2	112.5	94.2	82.0
47.5°	110.1	100.3	88.1	67.3	61.2
50°	80.7	75.8	66.1	50.2	48.9
52.5°	51.4	53.8	47.7	39.1	42.8
55°	24.5	34.3	31.8	33.0	35.5
57.5°	15.9	17.1	23.2	26.9	29.4
60°	12.2	12.2	17.1	22.0	24.5
62.5°	9.8	9.8	13.5	18.3	19.6
65°	7.3	8.6	9.8	13.5	15.9
67.5°	6.1	6.1	7.3	11.0	12.2
70°	4.9	4.9	6.1	8.6	9.8
72.5°	3.7	3.7	4.9	7.3	7.3
75°	2.4	3.7	3.7	4.9	6.1
77.5°	2.4	2.4	2.4	3.7	4.9
80°	1.2	1.2	2.4	2.4	3.7
82.5°	1.2	1.2	1.2	1.2	2.4
85°	0.0	0.0	0.0	1.2	1.2
87.5°	0.0	0.0	0.0	0.0	0.0
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	4.30	5.46	4.67	5.78	6.09	7.71	8.87	8.07	9.18	9.50
	3H	4.82	5.84	5.20	6.18	6.54	8.44	9.46	8.82	9.79	10.16
	4H	4.96	5.90	5.36	6.26	6.64	8.65	9.60	9.06	9.95	10.34
	6H	5.02	5.89	5.44	6.26	6.66	8.80	9.67	9.22	10.04	10.44
	8H	5.03	5.84	5.46	6.24	6.64	8.83	9.65	9.27	10.04	10.45
	12H	4.99	5.77	5.43	6.16	6.59	8.83	9.61	9.26	9.99	10.43
4H	2H	4.61	5.56	5.02	5.91	6.30	7.67	8.62	8.08	8.97	9.36
	3H	5.27	6.04	5.69	6.45	6.85	8.55	9.32	8.96	9.72	10.13
	4H	5.52	6.20	5.95	6.62	7.07	8.83	9.51	9.27	9.93	10.38
	6H	5.63	6.21	6.10	6.66	7.13	9.06	9.64	9.52	10.09	10.56
	8H	5.64	6.19	6.11	6.64	7.11	9.10	9.64	9.57	10.09	10.57
	12H	5.61	6.08	6.09	6.57	7.05	9.12	9.59	9.60	10.08	10.56
8H	4H	5.62	6.17	6.10	6.62	7.09	8.76	9.31	9.23	9.75	10.23
	6H	5.78	6.22	6.29	6.72	7.20	9.02	9.46	9.53	9.96	10.44
	8H	5.82	6.22	6.35	6.73	7.23	9.08	9.47	9.60	9.99	10.49
	12H	5.80	6.14	6.32	6.64	7.22	9.13	9.48	9.65	9.98	10.55
12H	4H	5.61	6.08	6.10	6.57	7.05	8.71	9.19	9.20	9.68	10.15
	6H	5.78	6.17	6.30	6.69	7.18	8.97	9.36	9.50	9.88	10.38
	8H	5.84	6.19	6.36	6.69	7.26	9.05	9.40	9.57	9.89	10.47