

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



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1058134

Luminaire Tested: S122RDRP-S865D840-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1058134
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: S122RDRP-S865D840-X4F0-XX-UDD-SVL-B
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

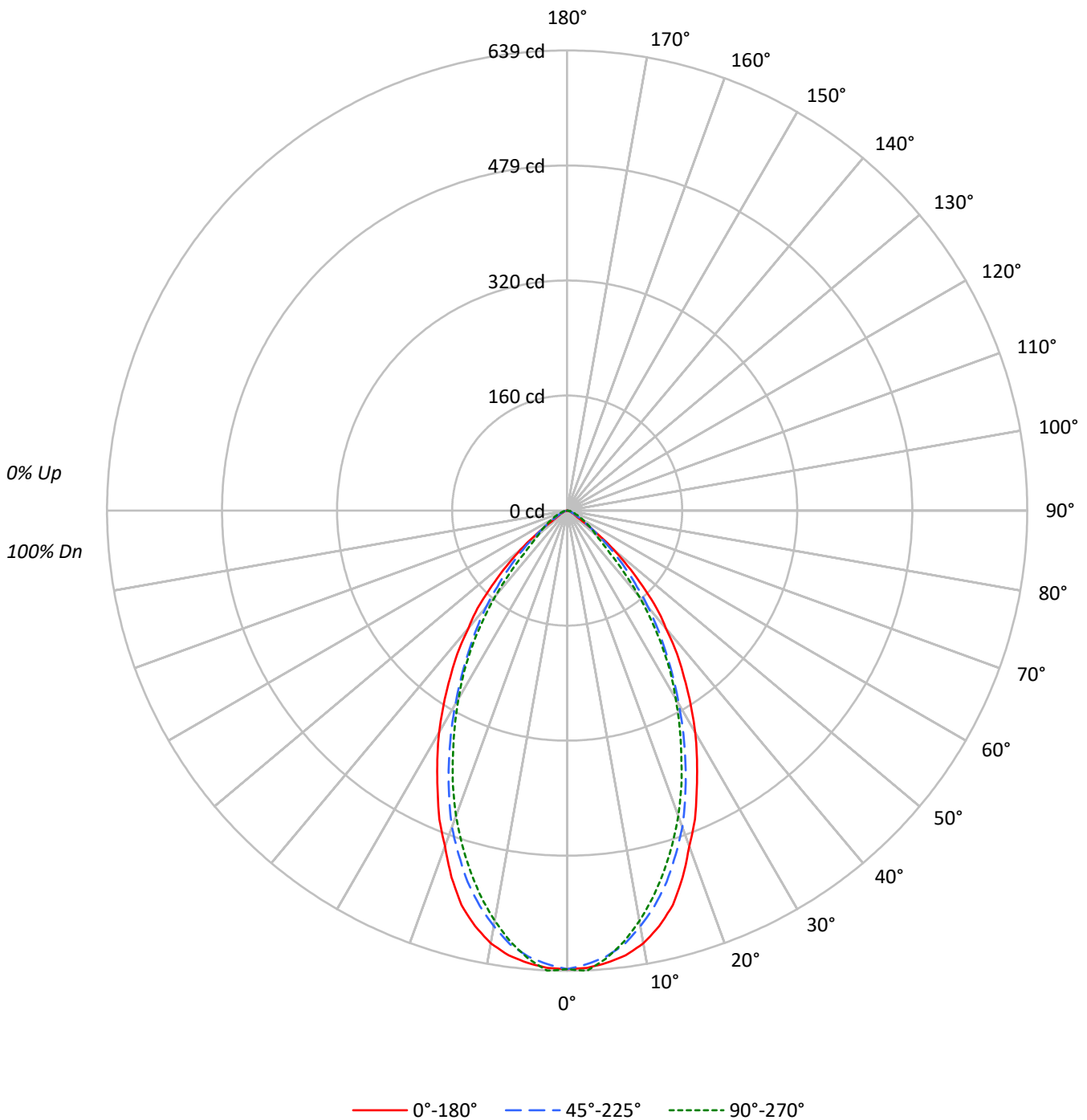
Lumens per Lamp: N/A
Luminaire Lumens: 685.0 lumens
Efficiency: N/A
Efficacy: 19.6 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 0.85 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
Input Voltage (V): 120
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: 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°	11752	11752	11752
5°	11679	11514	11562
10°	11433	10980	10838
15°	10832	10199	9909
20°	9736	9186	8862
25°	8671	7920	7635
30°	7583	6609	6420
35°	6386	5355	5183
40°	5145	4225	3736
45°	3849	3053	2223
50°	2409	1969	1458
55°	817	1065	1187
60°	469	657	937
65°	332	445	720
70°	275	345	550
75°	178	271	456
80°	138	266	404
85°	0	0	275

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3849 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.7	8.6
10°-20°	150.3	21.9
20°-30°	180.9	26.4
30°-40°	154.6	22.6
40°-50°	90.6	13.2
50°-60°	32.8	4.8
60°-70°	11.6	1.7
70°-80°	4.6	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°	389.9	56.9
0°-40°	544.5	79.5
0°-60°	667.8	97.5
0°-90°	685.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	685.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	637	637	637	637	637	
5°	630	632	622	624	624	60
15°	567	558	534	524	519	157
25°	426	408	389	383	375	195
35°	284	262	238	235	230	177
45°	148	132	117	98	85	114
55°	25	36	33	34	37	32
65°	8	9	10	14	16	8
75°	2	4	4	5	6	3
85°	0	0	0	1	1	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	636.9	636.9	636.9	636.9	636.9
2.5°	635.6	636.9	630.5	636.9	639.4
5°	630.5	631.8	621.6	624.2	624.2
7.5°	622.9	621.6	607.6	605.1	603.8
10°	610.2	606.4	586.0	582.2	578.4
12.5°	591.1	583.5	561.9	555.5	550.4
15°	567.0	558.1	533.9	523.7	518.7
17.5°	533.9	523.7	500.9	490.7	485.6
20°	495.8	485.6	467.8	456.4	451.3
22.5°	464.0	447.5	428.4	420.8	414.4
25°	425.9	408.1	389.0	382.6	375.0
27.5°	390.3	368.6	349.6	344.5	338.1
30°	355.9	333.1	310.2	310.2	301.3
32.5°	319.1	297.5	273.3	272.0	267.0
35°	283.5	261.9	237.7	235.2	230.1
37.5°	250.4	228.8	205.9	198.3	192.0
40°	213.6	194.5	175.4	162.7	155.1
42.5°	184.3	162.7	143.6	128.4	118.2
45°	147.5	132.2	117.0	97.9	85.2
47.5°	114.4	104.2	91.5	69.9	63.6
50°	83.9	78.8	68.6	52.1	50.8
52.5°	53.4	55.9	49.6	40.7	44.5
55°	25.4	35.6	33.1	34.3	36.9
57.5°	16.5	17.8	24.2	28.0	30.5
60°	12.7	12.7	17.8	22.9	25.4
62.5°	10.2	10.2	14.0	19.1	20.3
65°	7.6	8.9	10.2	14.0	16.5
67.5°	6.4	6.4	7.6	11.4	12.7
70°	5.1	5.1	6.4	8.9	10.2
72.5°	3.8	3.8	5.1	7.6	7.6
75°	2.5	3.8	3.8	5.1	6.4
77.5°	2.5	2.5	2.5	3.8	5.1
80°	1.3	1.3	2.5	2.5	3.8
82.5°	1.3	1.3	1.3	1.3	2.5
85°	0.0	0.0	0.0	1.3	1.3
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	4.44	5.61	4.81	5.92	6.23	7.85	9.01	8.21	9.32	9.64
	3H	4.97	5.99	5.35	6.32	6.69	8.57	9.60	8.95	9.93	10.29
	4H	5.10	6.05	5.51	6.40	6.79	8.79	9.74	9.20	10.09	10.48
	6H	5.17	6.04	5.59	6.41	6.81	8.94	9.81	9.36	10.18	10.58
	8H	5.18	6.00	5.61	6.39	6.80	8.97	9.79	9.40	10.18	10.59
	12H	5.14	5.93	5.58	6.31	6.74	8.97	9.75	9.40	10.13	10.57
4H	2H	4.76	5.70	5.16	6.05	6.44	7.81	8.76	8.22	9.11	9.50
	3H	5.42	6.19	5.84	6.60	7.00	8.69	9.46	9.10	9.86	10.27
	4H	5.66	6.34	6.09	6.76	7.21	8.97	9.65	9.41	10.07	10.52
	6H	5.77	6.36	6.24	6.81	7.28	9.19	9.78	9.66	10.23	10.70
	8H	5.79	6.34	6.26	6.79	7.26	9.24	9.78	9.71	10.23	10.70
	12H	5.76	6.24	6.25	6.72	7.20	9.26	9.73	9.75	10.22	10.70
8H	4H	5.76	6.31	6.23	6.76	7.23	8.90	9.44	9.37	9.89	10.37
	6H	5.93	6.37	6.43	6.87	7.35	9.16	9.60	9.66	10.10	10.58
	8H	5.97	6.37	6.50	6.89	7.38	9.22	9.61	9.74	10.13	10.63
	12H	5.95	6.30	6.47	6.80	7.37	9.28	9.63	9.80	10.12	10.70
12H	4H	5.75	6.22	6.23	6.71	7.19	8.85	9.33	9.34	9.81	10.29
	6H	5.92	6.32	6.45	6.84	7.33	9.11	9.50	9.63	10.02	10.51
	8H	6.00	6.35	6.52	6.85	7.42	9.19	9.54	9.71	10.03	10.61