

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: P1058131

Luminaire Tested: S122RDR-S865D840-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058131  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-21)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDR-S865D840-X4F0-XX-UDD-BVL-B  
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

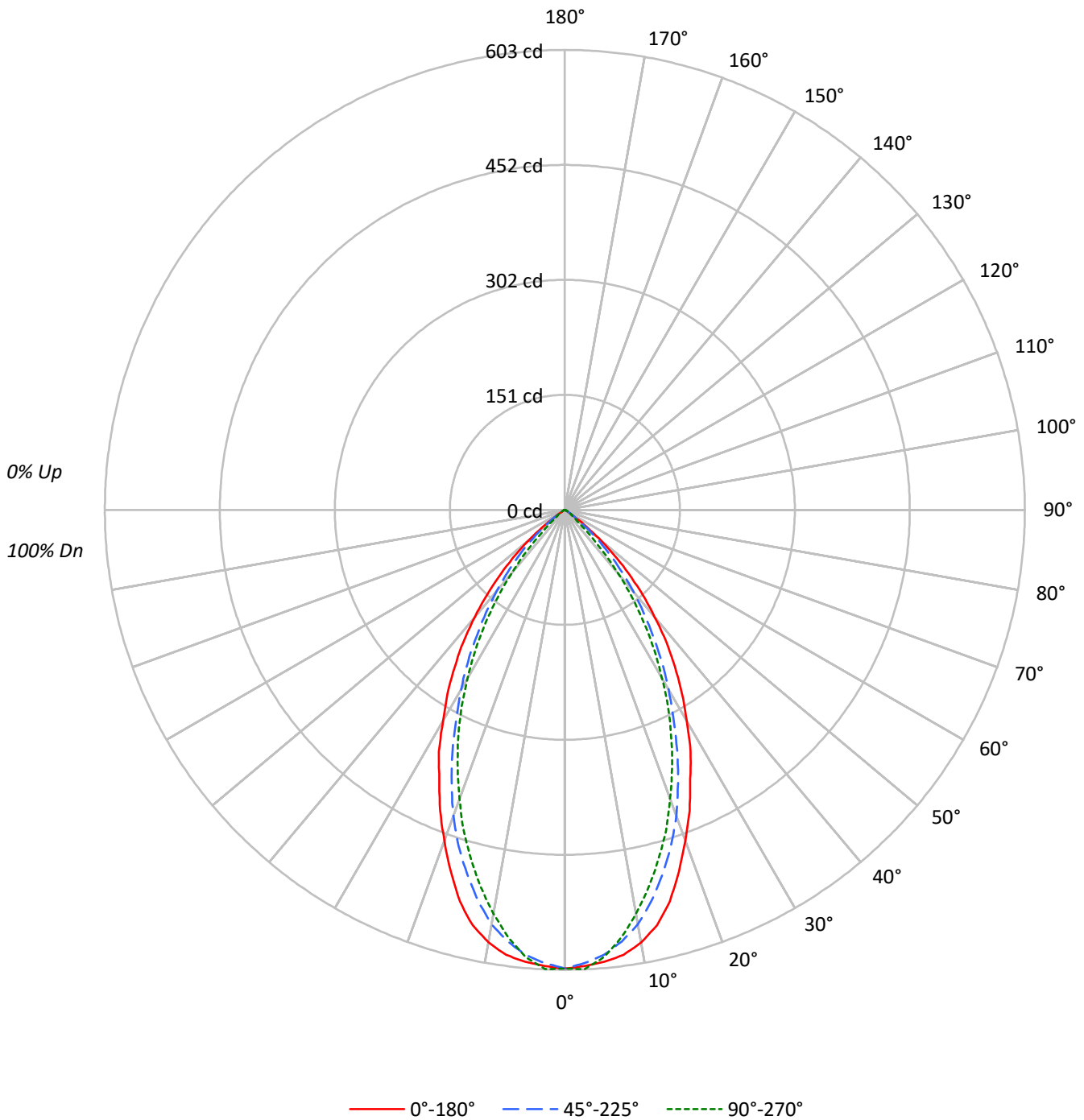
Lumens per Lamp: N/A  
Luminaire Lumens: 565.5 lumens  
Efficiency: N/A  
Efficacy: 16.2 lumens/watt  
Spacing Criteria (0/90/45): 0.91 / 0.8 / 0.88  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 35  
Input Voltage (V): 120  
Input Current (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				
1	113	110	108	105	111	108	106	104	104	102	101	100	99	98	97	96	95	93				
2	107	102	98	94	105	100	97	93	97	94	91	94	92	89	91	89	87	86				
3	101	95	90	85	99	93	89	85	91	87	83	88	85	82	86	83	81	79				
4	96	88	82	78	94	87	81	77	85	80	76	83	79	75	81	77	75	73				
5	91	82	76	71	89	81	75	71	79	74	70	77	73	70	76	72	69	67				
6	86	76	70	66	84	76	70	65	74	69	65	73	68	64	71	67	64	62				
7	81	71	65	61	80	71	65	61	69	64	60	68	63	60	67	63	60	58				
8	77	67	61	56	76	66	60	56	65	60	56	64	59	56	63	59	56	54				
9	73	63	57	53	72	62	57	52	61	56	52	61	56	52	60	55	52	51				
10	69	59	53	49	68	59	53	49	58	53	49	57	52	49	56	52	49	47				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	11095	11095	11095
5°	11019	10854	10903
10°	10791	10337	10075
15°	10152	9447	9059
20°	9062	8387	7914
25°	7920	7091	6729
30°	6799	5796	5418
35°	5670	4526	4066
40°	4411	3339	2604
45°	3085	2223	1127
50°	1679	1168	402
55°	244	409	286
60°	48	92	188
65°	0	57	109
70°	0	0	70
75°	0	0	0
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3085 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	55.2	9.8
10°-20°	139.2	24.6
20°-30°	162.3	28.7
30°-40°	130.1	23.0
40°-50°	64.6	11.4
50°-60°	12.8	2.3
60°-70°	1.1	0.2
70°-80°	0.1	0.0
80°-90°	0.0	0.0
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°	356.8	63.1
0°-40°	486.9	86.1
0°-60°	564.2	99.8
0°-90°	565.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	565.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	601	601	601	601	601	
5°	595	595	586	587	589	56
15°	531	521	494	482	474	148
25°	389	370	348	341	330	179
35°	252	226	201	192	180	157
45°	118	104	85	57	43	91
55°	8	15	13	8	9	15
65°	0	0	1	1	2	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	601.3	601.3	601.3	601.3	601.3
2.5°	598.8	601.3	594.9	601.3	602.6
5°	594.9	594.9	586.0	587.3	588.6
7.5°	588.6	586.0	570.8	568.3	565.7
10°	575.9	570.8	551.7	541.6	537.7
12.5°	558.1	550.5	525.0	513.6	507.2
15°	531.4	521.2	494.5	481.8	474.2
17.5°	497.1	488.2	462.7	448.8	441.1
20°	461.5	448.8	427.1	413.2	403.0
22.5°	427.1	410.6	387.7	377.6	367.4
25°	389.0	369.9	348.3	340.7	330.5
27.5°	357.2	333.1	307.6	302.6	293.7
30°	319.1	296.2	272.0	264.4	254.3
32.5°	286.0	260.6	236.5	227.6	218.7
35°	251.7	226.3	200.9	192.0	180.5
37.5°	218.7	194.5	169.1	155.1	144.9
40°	183.1	162.7	138.6	120.8	108.1
42.5°	151.3	133.5	110.6	87.7	75.0
45°	118.2	104.2	85.2	57.2	43.2
47.5°	87.7	77.5	62.3	33.1	22.9
50°	58.5	54.7	40.7	16.5	14.0
52.5°	31.8	34.3	24.2	10.2	11.4
55°	7.6	15.3	12.7	7.6	8.9
57.5°	1.3	2.5	6.4	6.4	6.4
60°	1.3	1.3	2.5	3.8	5.1
62.5°	1.3	0.0	1.3	2.5	3.8
65°	0.0	0.0	1.3	1.3	2.5
67.5°	0.0	0.0	0.0	1.3	1.3
70°	0.0	0.0	0.0	1.3	1.3
72.5°	0.0	0.0	0.0	0.0	1.3
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)