

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: P1058133

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058133  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-57)  
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-W  
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

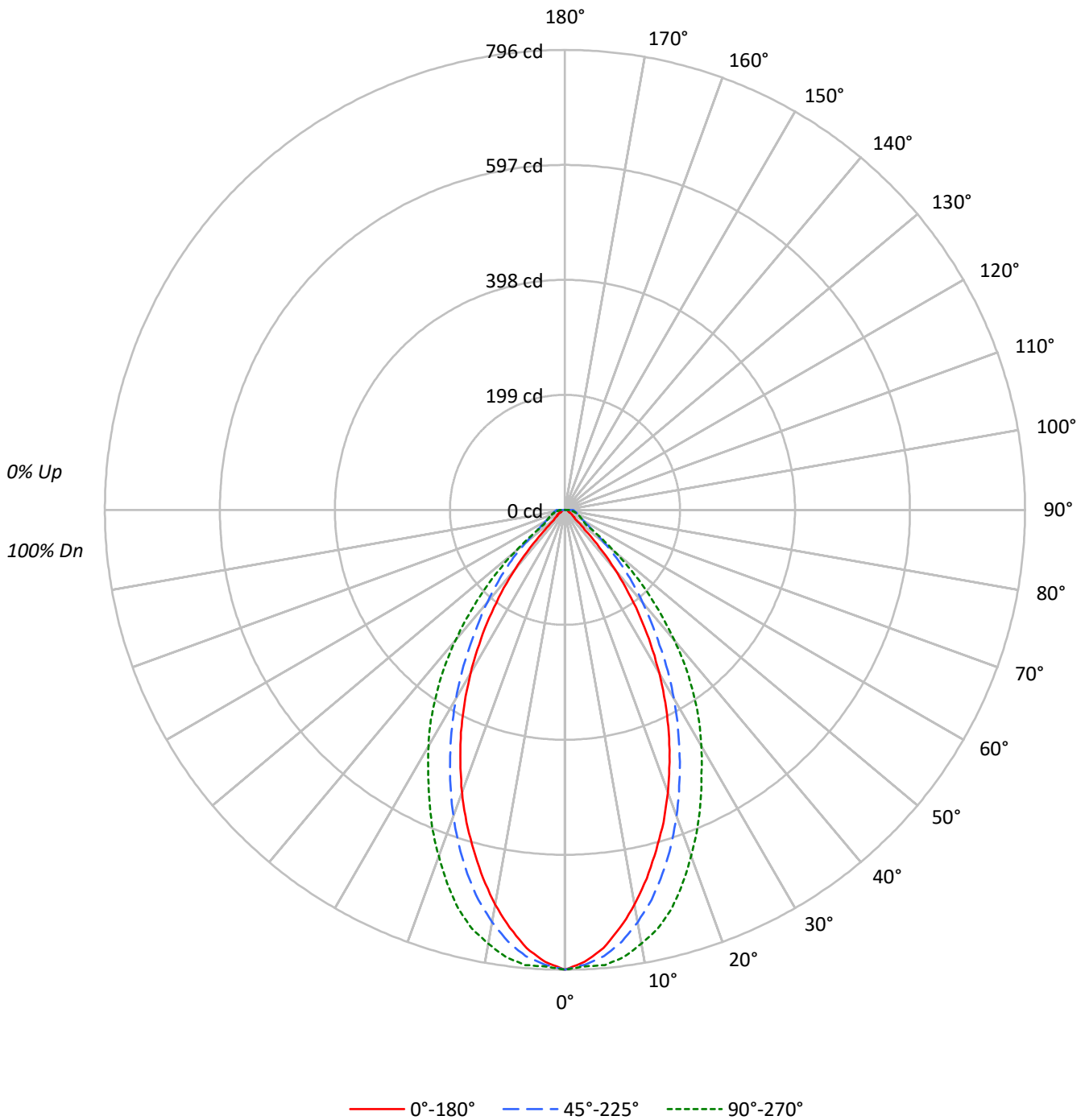
Lumens per Lamp: N/A  
Luminaire Lumens: 866.2 lumens  
Efficiency: N/A  
Efficacy: 24.7 lumens/watt  
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 35  
Input Voltage (V): 120  
Input Current (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	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90				
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81				
3	98	91	85	80	96	89	84	79	86	82	78	84	80	76	81	78	75	74				
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67				
5	87	77	70	65	85	76	70	65	74	69	64	72	67	64	71	66	63	61				
6	82	72	65	60	80	71	64	59	69	63	59	68	62	58	66	62	58	56				
7	77	67	60	55	76	66	59	55	64	59	54	63	58	54	62	57	54	52				
8	73	62	55	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48				
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46	45				
10	66	55	48	44	64	54	48	44	53	48	44	53	47	43	52	47	43	42				

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

	0°	45°	90°
0°	14684	14684	14684
5°	14105	14365	14648
10°	13004	13575	14291
15°	11651	12455	13647
20°	10227	11077	12528
25°	8659	9567	11304
30°	6946	8031	10065
35°	5134	6425	8720
40°	3221	5030	7084
45°	1263	3789	5250
50°	620	2558	3218
55°	492	1679	1435
60°	376	1362	1318
65°	279	1279	1279
70°	345	1306	1306
75°	364	1454	1362
80°	542	1891	1488
85°	1080	3239	2160

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 87.5°  
 Luminance: 5922 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.7	8.4
10°-20°	183.8	21.2
20°-30°	219.8	25.4
30°-40°	185.0	21.4
40°-50°	105.3	12.2
50°-60°	41.5	4.8
60°-70°	26.2	3.0
70°-80°	19.4	2.2
80°-90°	12.4	1.4
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°	476.3	55.0
0°-40°	661.3	76.3
0°-60°	808.2	93.3
0°-90°	866.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	866.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	796	796	796	796	796	
5°	762	778	776	784	791	71
15°	610	632	652	690	714	170
25°	425	444	470	518	555	194
35°	228	248	285	346	387	141
45°	48	85	145	182	201	46
55°	15	33	52	54	45	14
65°	6	29	29	28	29	7
75°	5	20	20	19	19	6
85°	5	14	15	14	10	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	795.8	795.8	795.8	795.8	795.8
2.5°	783.1	797.1	788.2	789.5	790.8
5°	761.5	778.0	775.5	784.4	790.8
7.5°	729.6	747.5	753.8	769.1	780.6
10°	694.0	714.4	724.5	748.7	762.7
12.5°	653.2	676.2	691.4	722.0	742.4
15°	609.9	631.6	652.0	690.2	714.4
17.5°	566.6	588.3	609.9	652.0	677.4
20°	520.8	541.2	564.1	608.7	638.0
22.5°	472.4	494.1	517.0	562.8	598.5
25°	425.3	444.4	469.9	518.3	555.2
27.5°	375.6	394.7	422.8	472.4	511.9
30°	326.0	345.1	376.9	427.8	472.4
32.5°	276.3	296.7	331.1	387.1	431.7
35°	227.9	248.3	285.2	346.4	387.1
37.5°	180.8	203.7	244.5	304.3	342.5
40°	133.7	160.4	208.8	262.3	294.1
42.5°	89.1	122.2	175.7	220.3	247.0
45°	48.4	85.3	145.2	182.1	201.2
47.5°	26.7	54.8	115.9	145.2	156.6
50°	21.6	38.2	89.1	110.8	112.1
52.5°	17.8	34.4	66.2	78.9	72.6
55°	15.3	33.1	52.2	53.5	44.6
57.5°	12.7	31.8	43.3	38.2	38.2
60°	10.2	31.8	36.9	34.4	35.7
62.5°	7.6	31.8	33.1	30.6	31.8
65°	6.4	29.3	29.3	28.0	29.3
67.5°	6.4	26.7	26.7	25.5	26.7
70°	6.4	25.5	24.2	24.2	24.2
72.5°	5.1	22.9	22.9	21.6	21.6
75°	5.1	20.4	20.4	19.1	19.1
77.5°	5.1	19.1	19.1	17.8	16.6
80°	5.1	16.6	17.8	16.6	14.0
82.5°	5.1	15.3	16.6	15.3	11.5
85°	5.1	14.0	15.3	14.0	10.2
87.5°	3.8	14.0	14.0	11.5	7.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)