

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: P1055267

Luminaire Tested: S122R3DR-S865D930-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1055267  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122R3DR-S865D930-X4F0-XX-UDD-F-S  
Description: DEFINE 2, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

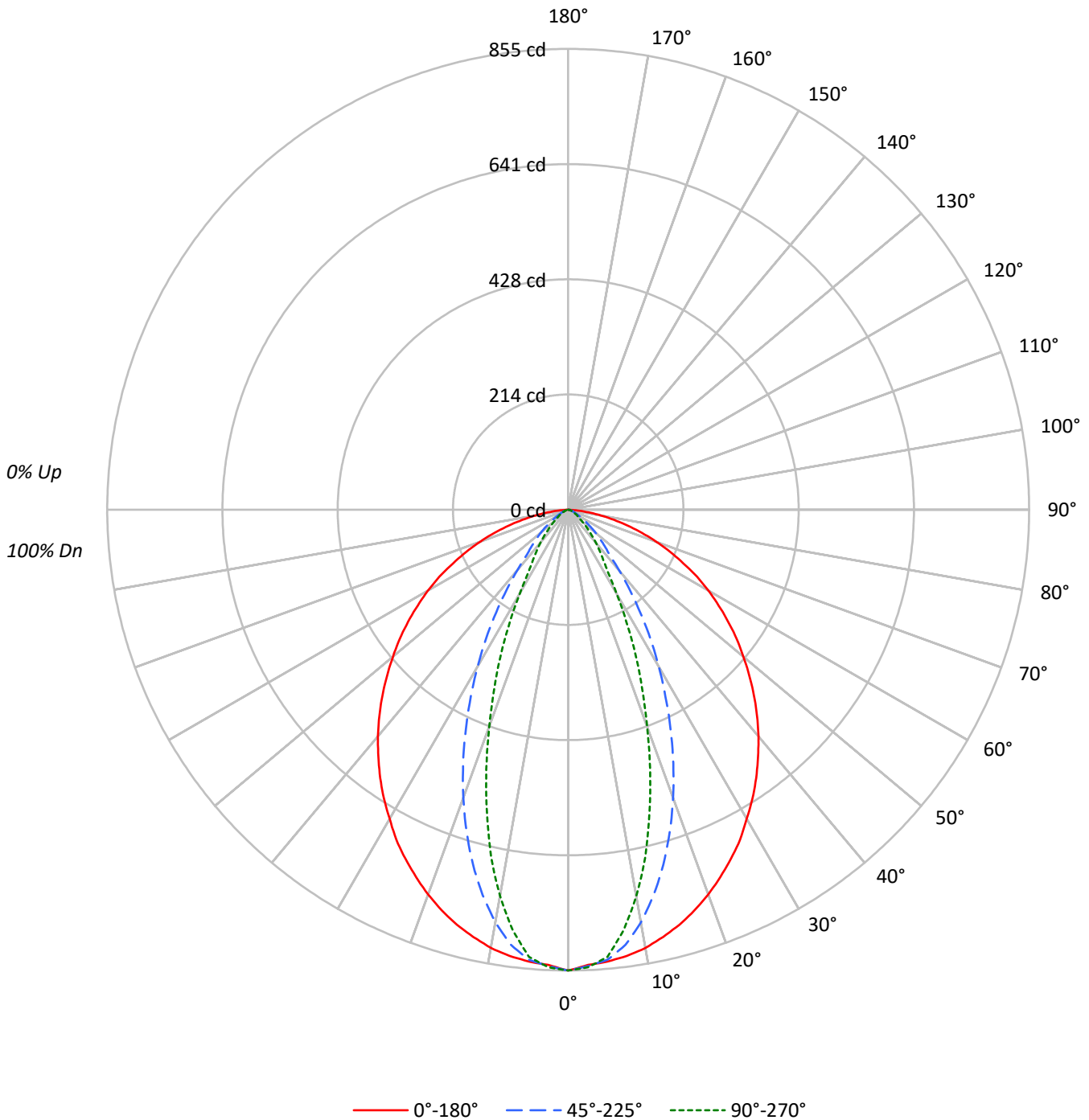
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 979.7 lumens  
Efficiency: N/A  
Efficacy: 28.2 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 0.64 / 0.81  
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 34.7  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	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	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	92	90					90			
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80					80			
3	97	89	83	78	95	88	82	77	85	80	76	82	78	74	80	76	73	71					71			
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64					64			
5	85	75	67	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58					58			
6	80	69	62	56	78	68	61	56	66	60	56	65	59	55	63	59	55	53					53			
7	75	64	57	52	74	63	56	51	62	56	51	60	55	51	59	54	50	49					49			
8	71	59	52	47	69	59	52	47	58	51	47	56	51	47	55	50	47	45					45			
9	67	56	49	44	66	55	48	44	54	48	44	53	47	43	52	47	43	42					42			
10	63	52	45	41	62	52	45	41	51	45	41	50	44	40	49	44	40	39					39			

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

	0°	45°	90°
0°	16197	16197	16197
5°	16000	15941	15840
10°	15883	14956	14009
15°	15638	13379	11425
20°	15315	11470	8619
25°	14936	9397	6154
30°	14487	7335	3920
35°	14055	5380	2618
40°	13578	3628	1969
45°	13054	2553	1404
50°	12506	1945	987
55°	11974	1351	727
60°	11394	913	595
65°	10566	659	471
70°	9633	521	404
75°	8360	461	307
80°	6634	338	338
85°	3652	456	217

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 13054 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	78.2	8.0
10°-20°	191.9	19.6
20°-30°	219.2	22.4
30°-40°	185.8	19.0
40°-50°	138.7	14.2
50°-60°	89.6	9.1
60°-70°	50.0	5.1
70°-80°	21.9	2.2
80°-90°	4.5	0.5
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°	489.2	49.9
0°-40°	675.0	68.9
0°-60°	903.3	92.2
0°-90°	979.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	979.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	855	855	855	855	855	
5°	841	852	838	830	833	80
15°	797	777	682	610	582	225
25°	714	631	450	329	294	329
35°	608	458	233	127	113	380
45°	487	289	95	62	52	376
55°	362	137	41	25	22	324
65°	236	50	15	12	10	234
75°	114	10	6	5	4	122
85°	17	1	2	1	1	24
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	854.9	854.9	854.9	854.9	854.9
2.5°	845.5	858.1	847.6	847.6	849.7
5°	841.3	851.8	838.2	829.8	832.9
7.5°	835.0	842.4	814.1	788.9	786.8
10°	825.6	828.7	777.4	738.6	728.2
12.5°	812.0	804.6	732.3	677.9	660.1
15°	797.3	777.4	682.1	609.8	582.5
17.5°	779.5	743.9	626.5	538.5	505.0
20°	759.6	709.3	568.9	464.1	427.5
22.5°	737.6	670.5	509.2	393.9	357.3
25°	714.5	630.7	449.5	329.0	294.4
27.5°	690.4	588.8	390.8	270.3	232.6
30°	662.2	545.9	335.3	213.7	179.2
32.5°	636.0	500.8	283.9	165.5	136.2
35°	607.7	457.8	232.6	126.8	113.2
37.5°	578.3	414.9	187.5	106.9	95.3
40°	549.0	371.9	146.7	90.1	79.6
42.5°	518.6	330.0	113.2	75.4	65.0
45°	487.2	289.2	95.3	61.8	52.4
47.5°	455.8	248.3	79.6	49.2	41.9
50°	424.3	209.5	66.0	38.8	33.5
52.5°	393.9	172.9	52.4	31.4	27.2
55°	362.5	137.3	40.9	25.1	22.0
57.5°	331.1	106.9	31.4	21.0	18.9
60°	300.7	80.7	24.1	16.8	15.7
62.5°	269.3	65.0	18.9	13.6	12.6
65°	235.7	50.3	14.7	11.5	10.5
67.5°	205.4	36.7	11.5	9.4	8.4
70°	173.9	25.1	9.4	8.4	7.3
72.5°	143.5	15.7	7.3	6.3	6.3
75°	114.2	10.5	6.3	5.2	4.2
77.5°	87.0	6.3	4.2	4.2	3.1
80°	60.8	4.2	3.1	3.1	3.1
82.5°	37.7	3.1	2.1	2.1	2.1
85°	16.8	1.0	2.1	1.0	1.0
87.5°	3.1	1.0	1.0	1.0	1.0
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	17.93	19.25	18.29	19.56	19.88	4.25	5.57	4.62	5.88	6.20
	3H	20.40	21.57	20.78	21.90	22.26	5.10	6.27	5.48	6.60	6.96
	4H	21.35	22.45	21.76	22.80	23.18	5.37	6.46	5.77	6.81	7.20
	6H	22.04	23.05	22.46	23.42	23.81	5.56	6.56	5.97	6.93	7.32
	8H	22.24	23.19	22.67	23.58	23.98	5.63	6.58	6.06	6.97	7.38
	12H	22.32	23.23	22.75	23.61	24.04	5.65	6.56	6.08	6.94	7.37
4H	2H	17.71	18.81	18.12	19.16	19.54	4.82	5.92	5.23	6.27	6.65
	3H	20.20	21.09	20.61	21.50	21.90	5.85	6.75	6.26	7.15	7.55
	4H	21.14	21.94	21.58	22.36	22.80	6.21	7.01	6.65	7.43	7.88
	6H	21.90	22.59	22.36	23.03	23.50	6.50	7.19	6.96	7.64	8.10
	8H	22.14	22.78	22.61	23.23	23.70	6.60	7.24	7.07	7.69	8.16
	12H	22.27	22.84	22.75	23.32	23.79	6.64	7.21	7.13	7.69	8.17
8H	4H	21.01	21.65	21.48	22.10	22.57	6.59	7.23	7.05	7.68	8.15
	6H	21.75	22.27	22.25	22.77	23.25	6.94	7.46	7.44	7.96	8.44
	8H	21.99	22.46	22.51	22.98	23.47	7.08	7.55	7.60	8.06	8.55
	12H	22.14	22.56	22.66	23.05	23.62	7.15	7.57	7.67	8.06	8.63
12H	4H	20.96	21.53	21.45	22.01	22.49	6.71	7.27	7.19	7.76	8.23
	6H	21.69	22.16	22.21	22.67	23.16	7.06	7.53	7.58	8.04	8.53
	8H	21.95	22.36	22.47	22.86	23.43	7.24	7.65	7.75	8.14	8.72