

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: P1055277

Luminaire Tested: S122R3DR-S865D950-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1055277  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122R3DR-S865D950-X4F0-XX-UDD-F-W  
Description: DEFINE 2, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

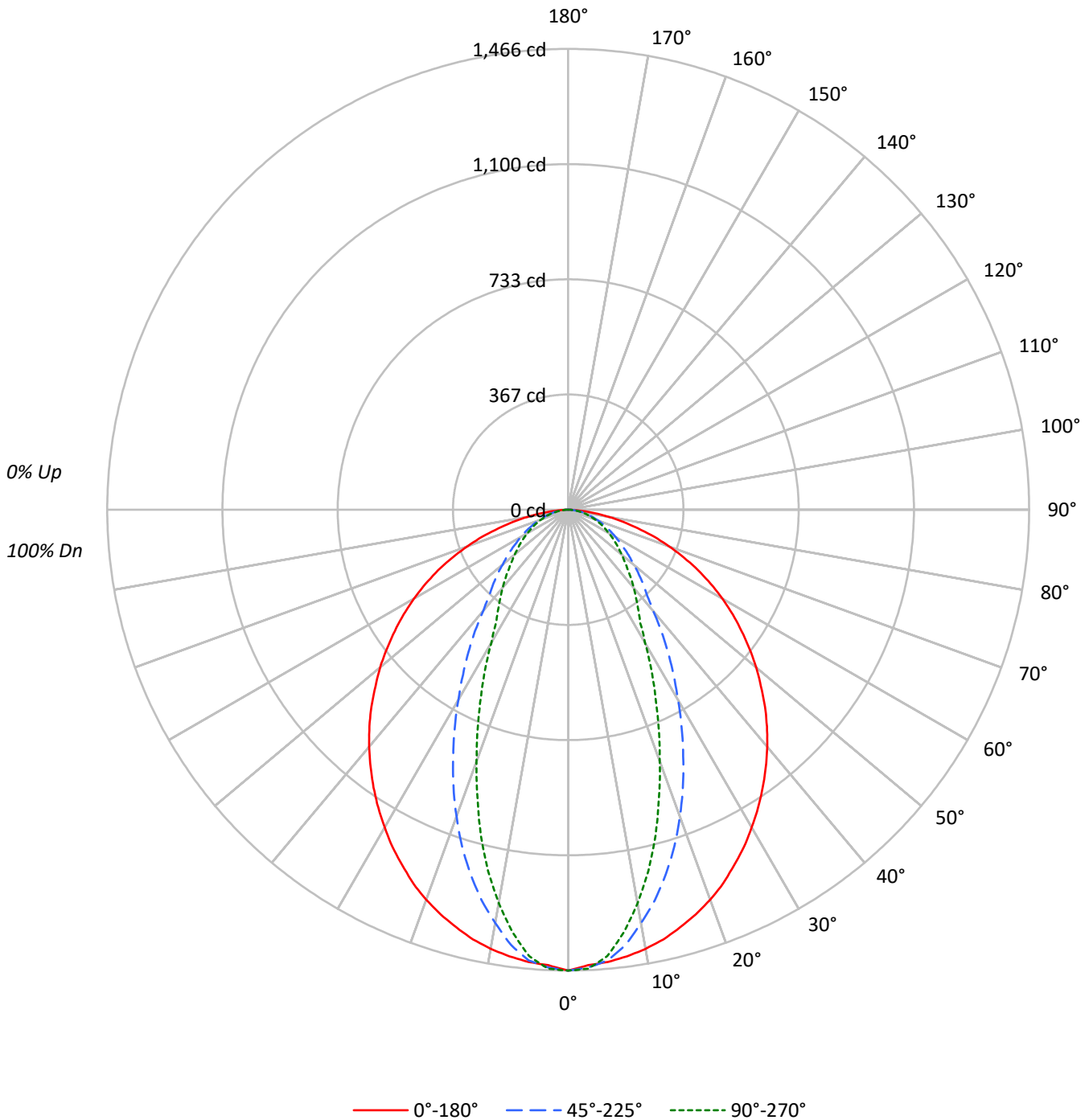
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2217.8 lumens  
Efficiency: N/A  
Efficacy: 63.9 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.71 / 0.9  
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 (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	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66
4	87	76	69	63	85	75	68	62	73	66	61	71	65	61	68	64	60	58
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	54	52
6	75	63	55	50	74	63	55	49	61	54	49	59	53	49	58	52	48	46
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38
9	62	50	43	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35
10	59	47	39	35	58	46	39	34	45	39	34	44	38	34	43	38	34	32

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

	0°	45°	90°
0°	27778	27778	27778
5°	27466	27373	27116
10°	27287	25685	24457
15°	26979	23541	21040
20°	26622	20936	17178
25°	26089	18093	13711
30°	25532	15287	10702
35°	24951	12788	8988
40°	24346	10370	8006
45°	23715	9067	7162
50°	23017	8023	6540
55°	22230	7247	6074
60°	21462	6597	5669
65°	20447	6048	5330
70°	18945	5639	5024
75°	16785	5117	4758
80°	14315	4812	4419
85°	9869	4261	4000

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 23715 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	134.4	6.1
10°-20°	339.2	15.3
20°-30°	418.0	18.8
30°-40°	401.0	18.1
40°-50°	345.9	15.6
50°-60°	268.4	12.1
60°-70°	183.8	8.3
70°-80°	99.8	4.5
80°-90°	27.3	1.2
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°	891.6	40.2
0°-40°	1292.6	58.3
0°-60°	1906.9	86.0
0°-90°	2217.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2217.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1466	1466	1466	1466	1466	
5°	1444	1465	1439	1421	1426	137
15°	1376	1334	1200	1102	1073	388
25°	1248	1114	866	706	656	575
35°	1079	856	553	412	389	675
45°	885	596	338	280	267	682
55°	673	358	219	190	184	602
65°	456	195	135	123	119	450
75°	229	90	70	66	65	246
85°	45	22	20	20	18	58
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1466.2	1466.2	1466.2	1466.2	1466.2
2.5°	1450.3	1474.8	1457.7	1457.7	1461.3
5°	1444.2	1465.0	1439.3	1420.9	1425.8
7.5°	1433.1	1447.8	1396.4	1357.1	1355.9
10°	1418.4	1419.7	1335.1	1283.6	1271.3
12.5°	1400.0	1380.4	1272.5	1195.3	1176.9
15°	1375.5	1333.8	1200.2	1102.1	1072.7
17.5°	1349.8	1286.0	1123.0	1000.4	959.9
20°	1320.4	1228.4	1038.4	898.6	852.0
22.5°	1287.2	1173.2	953.8	800.5	751.5
25°	1248.0	1114.4	865.5	706.1	655.9
27.5°	1210.0	1054.3	780.9	622.8	571.3
30°	1167.1	989.3	698.8	543.1	489.2
32.5°	1124.2	923.1	622.8	467.1	426.6
35°	1078.8	855.7	552.9	411.9	388.6
37.5°	1032.3	789.5	486.7	375.1	354.3
40°	984.4	723.3	419.3	339.6	323.7
42.5°	935.4	658.3	372.7	310.2	295.5
45°	885.1	595.8	338.4	279.5	267.3
47.5°	831.2	533.3	305.3	253.8	242.7
50°	780.9	473.2	272.2	230.5	221.9
52.5°	727.0	414.4	245.2	209.6	202.3
55°	673.0	358.0	219.4	190.0	183.9
57.5°	620.3	304.0	194.9	171.6	166.7
60°	566.4	261.1	174.1	154.5	149.6
62.5°	511.2	226.8	154.5	138.5	133.6
65°	456.1	194.9	134.9	122.6	118.9
67.5°	398.4	164.3	117.7	107.9	105.4
70°	342.0	137.3	101.8	93.2	90.7
72.5°	286.9	111.6	85.8	79.7	77.2
75°	229.3	89.5	69.9	66.2	65.0
77.5°	179.0	69.9	56.4	53.9	52.7
80°	131.2	51.5	44.1	41.7	40.5
82.5°	87.0	35.6	31.9	30.6	29.4
85°	45.4	22.1	19.6	19.6	18.4
87.5°	14.7	9.8	9.8	9.8	8.6
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	21.16	22.63	21.52	22.94	23.25	15.96	17.43	16.33	17.74	18.06
	3H	23.49	24.80	23.87	25.13	25.50	17.61	18.93	17.99	19.26	19.62
	4H	24.38	25.62	24.78	25.97	26.35	18.25	19.48	18.65	19.83	20.21
	6H	25.05	26.19	25.46	26.55	26.95	18.74	19.88	19.15	20.25	20.64
	8H	25.25	26.34	25.68	26.73	27.13	18.91	19.99	19.34	20.38	20.79
	12H	25.37	26.41	25.80	26.79	27.22	19.03	20.06	19.46	20.45	20.88
4H	2H	21.17	22.41	21.58	22.76	23.14	16.68	17.91	17.08	18.26	18.64
	3H	23.59	24.61	24.00	25.01	25.41	18.53	19.55	18.94	19.95	20.35
	4H	24.52	25.44	24.95	25.86	26.30	19.27	20.20	19.71	20.61	21.05
	6H	25.29	26.10	25.75	26.54	27.00	19.89	20.69	20.35	21.14	21.60
	8H	25.57	26.31	26.03	26.76	27.23	20.11	20.86	20.57	21.30	21.77
	12H	25.74	26.41	26.23	26.89	27.36	20.27	20.94	20.75	21.41	21.89
8H	4H	24.51	25.26	24.97	25.70	26.17	19.65	20.40	20.12	20.85	21.32
	6H	25.32	25.94	25.82	26.43	26.91	20.39	21.01	20.89	21.50	21.98
	8H	25.62	26.17	26.13	26.68	27.17	20.69	21.24	21.20	21.75	22.24
	12H	25.85	26.34	26.36	26.83	27.40	20.93	21.42	21.44	21.91	22.48
12H	4H	24.49	25.16	24.97	25.64	26.11	19.71	20.38	20.19	20.86	21.33
	6H	25.29	25.85	25.81	26.36	26.85	20.48	21.03	20.99	21.54	22.03
	8H	25.63	26.12	26.14	26.61	27.18	20.83	21.32	21.34	21.81	22.38