

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: P1055674

Luminaire Tested: S123R3DR-S775D935-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1055674  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123R3DR-S775D935-X4F0-XX-UDD-F-B  
Description: DEFINE 3, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

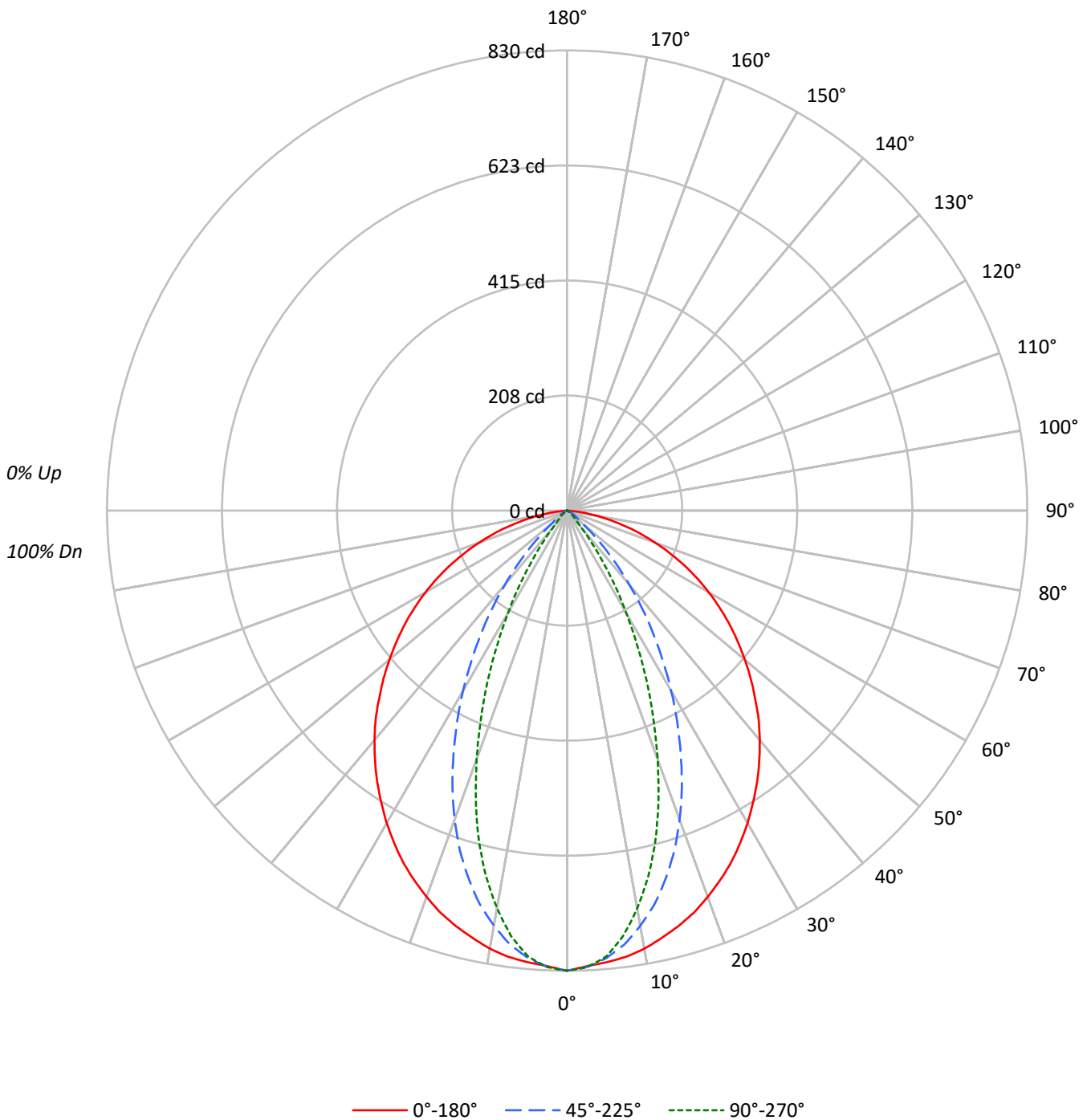
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 971.5 lumens  
Efficiency: N/A  
Efficacy: 36.8 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 0.7 / 0.86  
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 26.4  
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	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	103	109	106	104	101	102	100	98	98	97	95	95	93	92	90
2	105	99	94	89	102	97	92	88	93	90	86	90	87	84	87	85	83	81
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73
4	92	82	75	70	90	81	75	70	79	73	69	77	72	68	75	71	67	65
5	86	76	69	63	84	75	68	63	73	67	62	71	66	62	69	65	61	59
6	81	70	63	57	79	69	62	57	67	61	57	66	61	56	64	60	56	54
7	76	65	58	53	74	64	57	52	63	57	52	61	56	52	60	55	52	50
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	48	46
9	68	56	49	45	66	56	49	45	55	49	45	54	48	44	53	48	44	43
10	64	53	46	42	63	52	46	42	51	46	41	51	45	41	50	45	41	40

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

	0°	45°	90°
0°	10007	10007	10007
5°	9899	9805	9774
10°	9823	9308	8917
15°	9683	8576	7684
20°	9511	7611	6120
25°	9312	6448	4512
30°	9062	5226	2961
35°	8794	3980	1622
40°	8510	2751	556
45°	8177	1599	322
50°	7848	630	193
55°	7510	397	90
60°	7121	248	41
65°	6633	123	26
70°	5950	60	32
75°	5054	42	42
80°	3763	62	0
85°	1425	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 8177 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	76.1	7.8
10°-20°	193.1	19.9
20°-30°	230.4	23.7
30°-40°	195.4	20.1
40°-50°	132.8	13.7
50°-60°	82.3	8.5
60°-70°	41.7	4.3
70°-80°	17.0	1.8
80°-90°	2.6	0.3
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°	499.6	51.4
0°-40°	695.0	71.5
0°-60°	910.1	93.7
0°-90°	971.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	971.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	830	830	830	830	830	
5°	818	826	810	804	808	78
15°	776	756	687	633	616	219
25°	700	635	485	374	339	322
35°	598	480	270	146	110	373
45°	480	314	94	23	19	370
55°	357	158	19	7	4	319
65°	232	39	4	1	1	230
75°	108	7	1	1	1	115
85°	10	0	0	1	0	18
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	830.0	830.0	830.0	830.0	830.0
2.5°	822.3	833.4	824.0	823.1	824.0
5°	817.9	825.7	810.2	804.2	807.6
7.5°	811.9	815.4	789.5	774.0	774.0
10°	802.4	799.9	760.3	734.4	728.4
12.5°	789.5	779.2	727.5	687.1	675.9
15°	775.8	756.0	687.1	632.8	615.6
17.5°	760.3	730.1	643.2	572.6	547.6
20°	741.3	700.9	593.2	507.1	477.0
22.5°	721.5	669.0	540.7	440.0	406.4
25°	700.0	634.6	484.7	374.5	339.2
27.5°	675.9	598.4	429.6	311.7	272.9
30°	650.9	560.5	375.4	251.4	212.7
32.5°	624.2	520.9	321.2	196.3	160.1
35°	597.5	479.6	270.4	145.5	110.2
37.5°	569.1	438.2	221.3	100.7	69.7
40°	540.7	397.8	174.8	63.7	35.3
42.5°	511.4	355.6	132.6	31.9	24.1
45°	479.6	314.3	93.8	23.2	18.9
47.5°	449.4	274.7	62.0	18.9	14.6
50°	418.4	235.1	33.6	13.8	10.3
52.5°	387.4	197.2	24.1	10.3	6.9
55°	357.3	158.4	18.9	6.9	4.3
57.5°	326.3	124.8	14.6	4.3	2.6
60°	295.3	92.1	10.3	2.6	1.7
62.5°	264.3	63.7	6.9	1.7	0.9
65°	232.5	38.7	4.3	0.9	0.9
67.5°	199.8	26.7	2.6	0.9	0.9
70°	168.8	18.9	1.7	0.9	0.9
72.5°	137.8	12.1	0.9	0.9	0.0
75°	108.5	6.9	0.9	0.9	0.9
77.5°	80.1	2.6	0.9	0.9	0.0
80°	54.2	0.9	0.9	0.9	0.0
82.5°	30.1	0.0	0.9	0.9	0.0
85°	10.3	0.0	0.0	0.9	0.0
87.5°	0.0	0.0	0.0	0.9	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	17.05	18.33	17.41	18.64	18.96	0.00	0.00	0.00	0.00	0.00
	3H	18.99	20.13	19.37	20.46	20.82	0.00	0.00	0.00	0.00	0.00
	4H	19.82	20.88	20.23	21.23	21.61	0.00	0.00	0.00	0.00	0.00
	6H	20.38	21.35	20.79	21.72	22.11	0.00	0.00	0.00	0.00	0.00
	8H	20.50	21.42	20.93	21.81	22.22	0.00	0.00	0.00	0.00	0.00
	12H	20.53	21.40	20.96	21.78	22.22	0.00	0.00	0.00	0.00	0.00
4H	2H	16.81	17.87	17.21	18.22	18.60	0.00	0.00	0.00	0.00	0.00
	3H	18.77	19.63	19.18	20.03	20.44	0.00	0.00	0.00	0.00	0.00
	4H	19.58	20.35	20.02	20.77	21.21	0.00	0.00	0.00	0.00	0.00
	6H	20.18	20.84	20.65	21.29	21.76	0.00	0.00	0.00	0.00	0.00
	8H	20.33	20.95	20.80	21.40	21.87	0.00	0.00	0.00	0.00	0.00
	12H	20.38	20.92	20.87	21.41	21.88	0.00	0.00	0.00	0.00	0.00
8H	4H	19.44	20.06	19.91	20.50	20.97	0.00	0.00	0.00	0.00	0.00
	6H	20.02	20.52	20.52	21.02	21.50	0.00	0.00	0.00	0.00	0.00
	8H	20.17	20.62	20.69	21.14	21.63	0.00	0.00	0.00	0.00	0.00
	12H	20.23	20.62	20.74	21.12	21.69	0.00	0.00	0.00	0.00	0.00
12H	4H	19.39	19.93	19.88	20.42	20.89	0.00	0.00	0.00	0.00	0.00
	6H	19.96	20.41	20.48	20.92	21.42	0.00	0.00	0.00	0.00	0.00
	8H	20.12	20.52	20.64	21.02	21.59	0.00	0.00	0.00	0.00	0.00