

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: P1055672

Luminaire Tested: S123R3DR-S775D930-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1055672  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123R3DR-S775D930-X4F0-XX-UDD-F-S  
Description: DEFINE 3, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

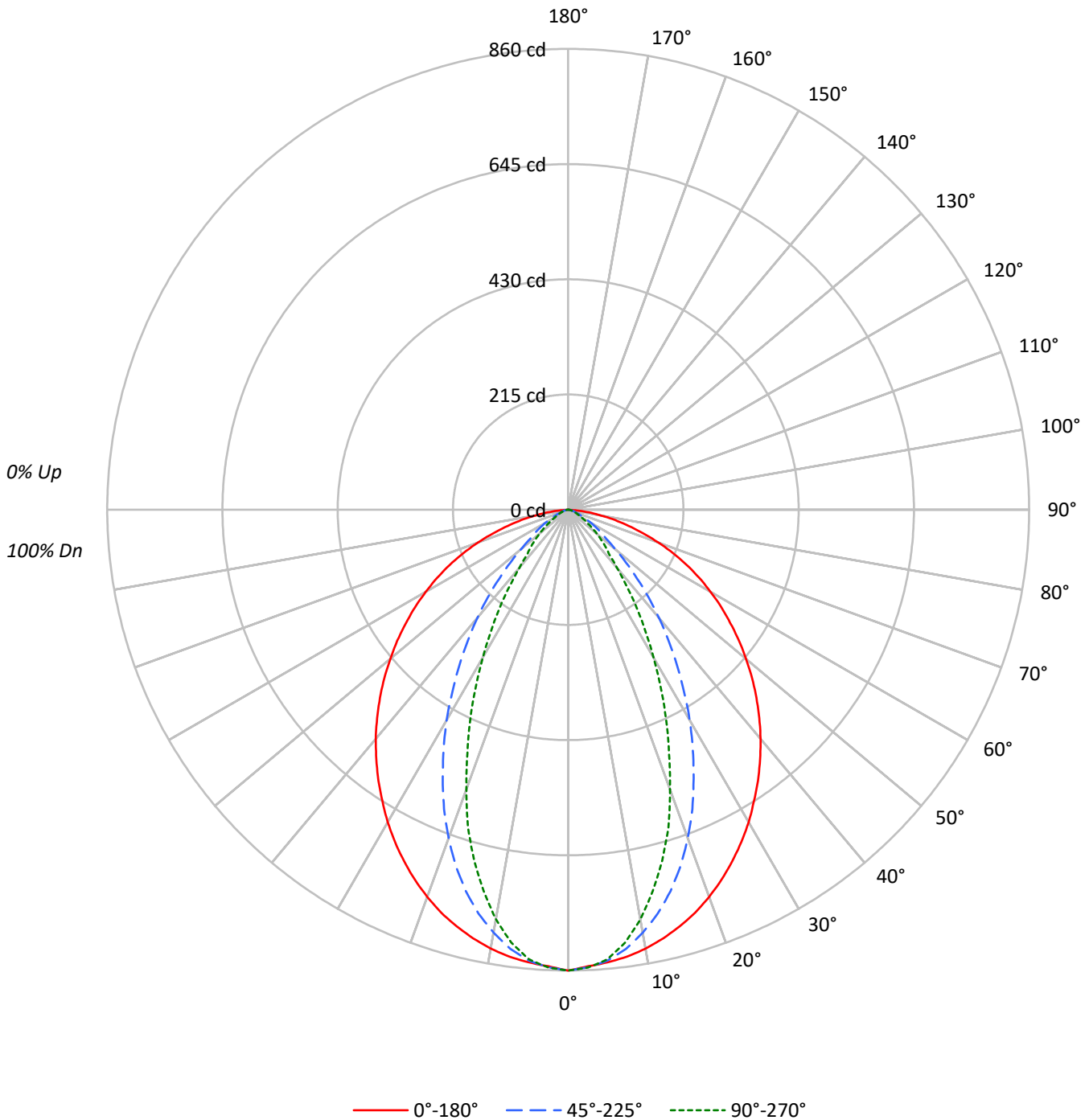
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1196.2 lumens  
Efficiency: N/A  
Efficacy: 45.3 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 0.77 / 0.94  
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 (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	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79
3	96	88	81	76	94	86	80	76	84	78	74	81	77	73	79	75	72	70
4	90	80	73	67	88	79	72	67	76	71	66	74	69	65	72	68	64	62
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58	56
6	78	67	60	54	77	66	59	54	65	58	53	63	57	53	62	57	53	51
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48	46
8	69	57	50	45	68	57	50	45	56	49	45	54	49	44	53	48	44	42
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	45	41	39
10	62	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36

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

	0°	45°	90°
0°	10370	10370	10370
5°	10262	10222	10193
10°	10181	9811	9503
15°	10044	9199	8456
20°	9864	8368	7123
25°	9631	7364	5748
30°	9375	6311	4427
35°	9084	5207	3276
40°	8790	4144	2233
45°	8465	3100	1683
50°	8120	2157	1315
55°	7763	1576	961
60°	7393	1179	687
65°	6955	790	536
70°	6292	575	430
75°	5432	419	340
80°	4360	340	285
85°	2255	332	221

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 8465 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	79.5	6.6
10°-20°	207.0	17.3
20°-30°	260.0	21.7
30°-40°	242.2	20.2
40°-50°	185.4	15.5
50°-60°	123.2	10.3
60°-70°	66.4	5.6
70°-80°	27.2	2.3
80°-90°	5.2	0.4
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°	546.5	45.7
0°-40°	788.7	65.9
0°-60°	1097.3	91.7
0°-90°	1196.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1196.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	860	860	860	860	860	
5°	848	857	845	841	842	80
15°	805	792	737	694	678	227
25°	724	675	554	462	432	333
35°	617	526	354	250	223	386
45°	496	367	182	107	99	383
55°	369	214	75	52	46	331
65°	244	82	28	20	19	241
75°	117	20	9	8	7	125
85°	16	2	2	2	2	24
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	860.1	860.1	860.1	860.1	860.1
2.5°	852.8	863.4	854.4	855.2	855.2
5°	847.9	856.9	844.6	841.4	842.2
7.5°	841.4	847.1	826.7	816.1	814.5
10°	831.6	833.2	801.4	782.7	776.2
12.5°	819.4	813.7	772.1	741.1	728.9
15°	804.7	791.7	737.0	693.8	677.5
17.5°	788.4	766.4	697.1	640.8	621.3
20°	768.8	737.8	652.2	582.1	555.2
22.5°	747.6	707.7	605.0	521.8	491.6
25°	724.0	675.1	553.6	461.5	432.1
27.5°	699.5	640.0	503.0	404.4	374.2
30°	673.4	604.1	453.3	348.9	318.0
32.5°	644.9	565.0	401.9	297.6	266.6
35°	617.2	525.9	353.8	250.3	222.6
37.5°	587.8	486.7	307.4	208.7	177.7
40°	558.5	446.8	263.3	168.0	141.9
42.5°	527.5	406.8	221.8	133.7	113.3
45°	496.5	366.9	181.8	106.8	98.7
47.5°	465.5	326.9	146.8	92.1	84.0
50°	432.9	288.6	115.0	78.3	70.1
52.5°	401.9	250.3	89.7	64.4	57.1
55°	369.3	213.6	75.0	52.2	45.7
57.5°	339.2	176.1	62.0	40.8	35.9
60°	306.6	142.7	48.9	31.8	28.5
62.5°	275.6	111.7	37.5	25.3	22.8
65°	243.8	82.3	27.7	20.4	18.8
67.5°	212.0	59.5	21.2	16.3	15.5
70°	178.5	44.8	16.3	13.0	12.2
72.5°	146.8	31.8	12.2	10.6	9.8
75°	116.6	19.6	9.0	8.2	7.3
77.5°	89.7	11.4	6.5	6.5	5.7
80°	62.8	6.5	4.9	4.9	4.1
82.5°	38.3	4.1	3.3	3.3	3.3
85°	16.3	2.4	2.4	2.4	1.6
87.5°	2.4	0.8	0.8	0.8	0.8
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	17.94	19.30	18.30	19.61	19.92	6.52	7.87	6.88	8.19	8.50
	3H	19.69	20.90	20.07	21.23	21.59	7.18	8.38	7.56	8.71	9.08
	4H	20.39	21.52	20.79	21.87	22.25	7.37	8.50	7.78	8.85	9.23
	6H	20.91	21.94	21.32	22.31	22.70	7.50	8.53	7.91	8.90	9.29
	8H	21.05	22.02	21.48	22.42	22.82	7.53	8.51	7.96	8.90	9.31
	12H	21.10	22.03	21.53	22.42	22.85	7.54	8.48	7.97	8.86	9.29
4H	2H	17.75	18.87	18.15	19.22	19.60	7.07	8.20	7.47	8.55	8.93
	3H	19.54	20.46	19.95	20.86	21.27	7.87	8.79	8.28	9.19	9.60
	4H	20.23	21.06	20.67	21.48	21.92	8.13	8.95	8.56	9.37	9.81
	6H	20.81	21.52	21.27	21.96	22.43	8.33	9.04	8.79	9.48	9.95
	8H	20.98	21.64	21.45	22.09	22.56	8.38	9.04	8.85	9.49	9.96
	12H	21.07	21.65	21.55	22.13	22.61	8.41	9.00	8.90	9.48	9.95
8H	4H	20.11	20.77	20.58	21.22	21.69	8.44	9.10	8.91	9.55	10.02
	6H	20.67	21.21	21.17	21.70	22.18	8.69	9.23	9.19	9.73	10.21
	8H	20.84	21.33	21.36	21.84	22.33	8.78	9.27	9.30	9.78	10.27
	12H	20.95	21.37	21.46	21.87	22.44	8.86	9.29	9.37	9.78	10.35
12H	4H	20.07	20.65	20.55	21.14	21.61	8.49	9.07	8.97	9.55	10.03
	6H	20.61	21.09	21.13	21.61	22.10	8.74	9.22	9.26	9.74	10.23
	8H	20.80	21.23	21.32	21.73	22.30	8.86	9.29	9.38	9.79	10.36