

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: P1059393

Luminaire Tested: S123RDRP-S775D940-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059393  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-66)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-S775D940-X4F0-XX-UDD-BVL-W  
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

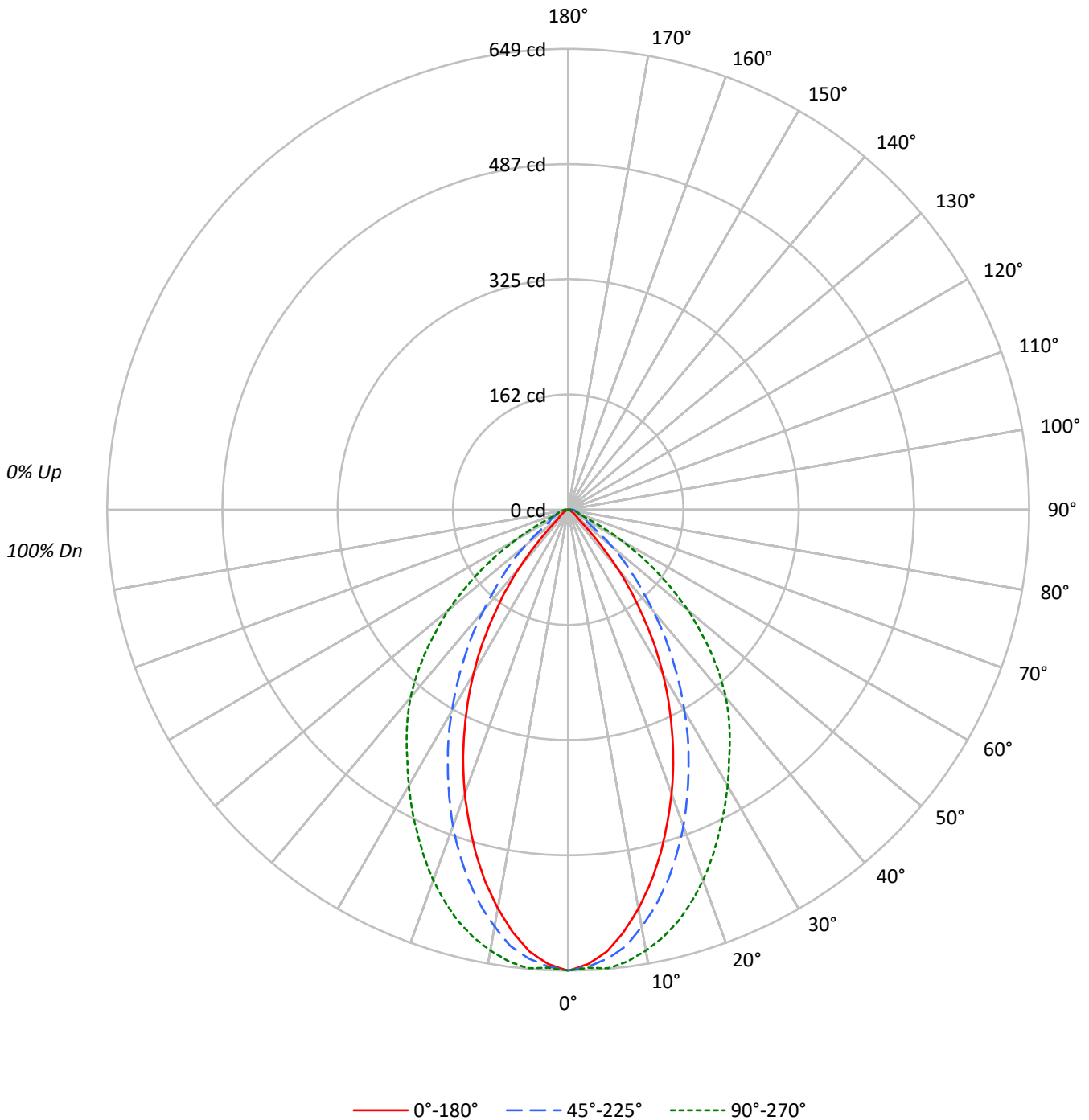
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 779.3 lumens  
Efficiency: N/A  
Efficacy: 30.2 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 25.8  
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	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	99	94	90	102	97	92	88	94	90	87	91	87	85	88	85	83	81
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73
4	92	83	76	71	90	81	75	70	79	74	70	77	72	69	75	71	68	66
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55
7	76	65	58	53	75	65	58	53	63	57	53	62	56	52	61	56	52	50
8	72	61	54	49	70	60	53	49	59	53	49	58	52	48	57	52	48	47
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	42	40

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

	0°	45°	90°
0°	7622	7622	7622
5°	7360	7480	7642
10°	6794	7109	7515
15°	6097	6574	7289
20°	5318	5926	6939
25°	4487	5194	6509
30°	3608	4441	6084
35°	2640	3655	5685
40°	1648	2850	5296
45°	623	2124	4716
50°	296	1465	4021
55°	227	803	3108
60°	160	681	2043
65°	119	592	853
70°	117	556	556
75°	154	581	581
80°	230	690	636
85°	458	1145	916

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4716 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.6	7.6
10°-20°	152.8	19.6
20°-30°	189.1	24.3
30°-40°	169.6	21.8
40°-50°	111.2	14.3
50°-60°	55.6	7.1
60°-70°	21.7	2.8
70°-80°	12.2	1.6
80°-90°	7.5	1.0
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°	401.5	51.5
0°-40°	571.1	73.3
0°-60°	737.9	94.7
0°-90°	779.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	779.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	649	649	649	649	649	
5°	624	635	635	641	648	58
15°	502	522	541	577	600	140
25°	346	368	401	458	502	158
35°	184	209	255	332	397	115
45°	38	61	128	219	284	36
55°	11	14	39	108	152	10
65°	4	13	21	28	31	4
75°	3	13	13	13	13	4
85°	3	8	8	8	7	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	649.1	649.1	649.1	649.1	649.1
2.5°	640.6	650.0	644.0	644.8	645.7
5°	624.4	634.6	634.6	641.4	648.3
7.5°	599.6	611.6	620.1	632.0	641.4
10°	569.8	584.3	596.2	617.5	630.3
12.5°	537.4	555.3	570.6	598.8	616.7
15°	501.5	522.0	540.8	576.6	599.6
17.5°	463.2	483.6	508.4	550.2	578.3
20°	425.6	446.1	474.2	521.2	555.3
22.5°	386.4	407.7	437.6	489.6	529.7
25°	346.3	367.6	400.9	458.0	502.4
27.5°	306.2	327.5	365.1	427.3	476.0
30°	266.1	287.4	327.5	394.1	448.7
32.5°	226.0	249.1	290.9	363.4	421.4
35°	184.2	209.0	255.0	331.8	396.6
37.5°	145.9	168.9	220.9	304.5	371.9
40°	107.5	132.2	185.9	278.1	345.5
42.5°	69.9	96.4	154.4	249.1	315.6
45°	37.5	60.6	127.9	219.2	284.0
47.5°	20.5	33.3	103.2	187.7	251.6
50°	16.2	18.8	80.2	160.4	220.1
52.5°	13.6	15.4	57.1	134.8	185.1
55°	11.1	13.6	39.2	107.5	151.8
57.5°	9.4	11.9	30.7	83.6	118.6
60°	6.8	10.2	29.0	61.4	87.0
62.5°	5.1	11.1	25.6	42.6	57.1
65°	4.3	12.8	21.3	28.1	30.7
67.5°	3.4	13.6	18.8	17.9	17.9
70°	3.4	12.8	16.2	15.4	16.2
72.5°	3.4	13.6	14.5	13.6	14.5
75°	3.4	12.8	12.8	12.8	12.8
77.5°	3.4	11.9	11.9	11.1	11.1
80°	3.4	10.2	10.2	10.2	9.4
82.5°	3.4	9.4	9.4	9.4	7.7
85°	3.4	8.5	8.5	8.5	6.8
87.5°	2.6	7.7	8.5	7.7	5.1
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	0.00	0.65	0.00	0.96	1.28	13.66	14.92	14.03	15.23	15.55
	3H	1.73	2.84	2.11	3.17	3.54	13.74	14.85	14.12	15.18	15.55
	4H	2.83	3.87	3.24	4.22	4.60	13.82	14.85	14.22	15.20	15.59
	6H	3.82	4.77	4.24	5.14	5.54	13.92	14.87	14.34	15.24	15.64
	8H	4.30	5.20	4.74	5.59	6.00	13.98	14.88	14.41	15.27	15.68
	12H	4.86	5.72	5.29	6.10	6.53	14.06	14.92	14.50	15.30	15.74
4H	2H	2.65	3.69	3.06	4.04	4.42	13.52	14.55	13.92	14.90	15.29
	3H	4.97	5.82	5.38	6.22	6.62	13.69	14.54	14.11	14.94	15.35
	4H	6.34	7.10	6.78	7.52	7.96	13.84	14.60	14.28	15.02	15.46
	6H	7.43	8.08	7.89	8.53	8.99	14.07	14.72	14.53	15.17	15.64
	8H	7.88	8.49	8.35	8.94	9.41	14.19	14.80	14.66	15.25	15.72
	12H	8.38	8.91	8.86	9.40	9.87	14.37	14.91	14.85	15.39	15.86
8H	4H	7.32	7.93	7.79	8.38	8.85	13.84	14.45	14.31	14.90	15.37
	6H	8.83	9.33	9.34	9.83	10.31	14.18	14.68	14.68	15.17	15.66
	8H	9.61	10.06	10.13	10.58	11.07	14.41	14.86	14.93	15.38	15.87
	12H	10.41	10.81	10.93	11.31	11.88	14.74	15.14	15.26	15.64	16.21
12H	4H	7.49	8.03	7.98	8.52	8.99	13.82	14.36	14.31	14.85	15.32
	6H	9.15	9.60	9.67	10.12	10.61	14.20	14.65	14.72	15.16	15.66
	8H	10.11	10.51	10.62	11.00	11.58	14.51	14.91	15.02	15.40	15.97