

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: P1059358

Luminaire Tested: S123RDRP-S775D850-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059358  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-29)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-S775D850-X4F0-XX-UDD-SVL-B  
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

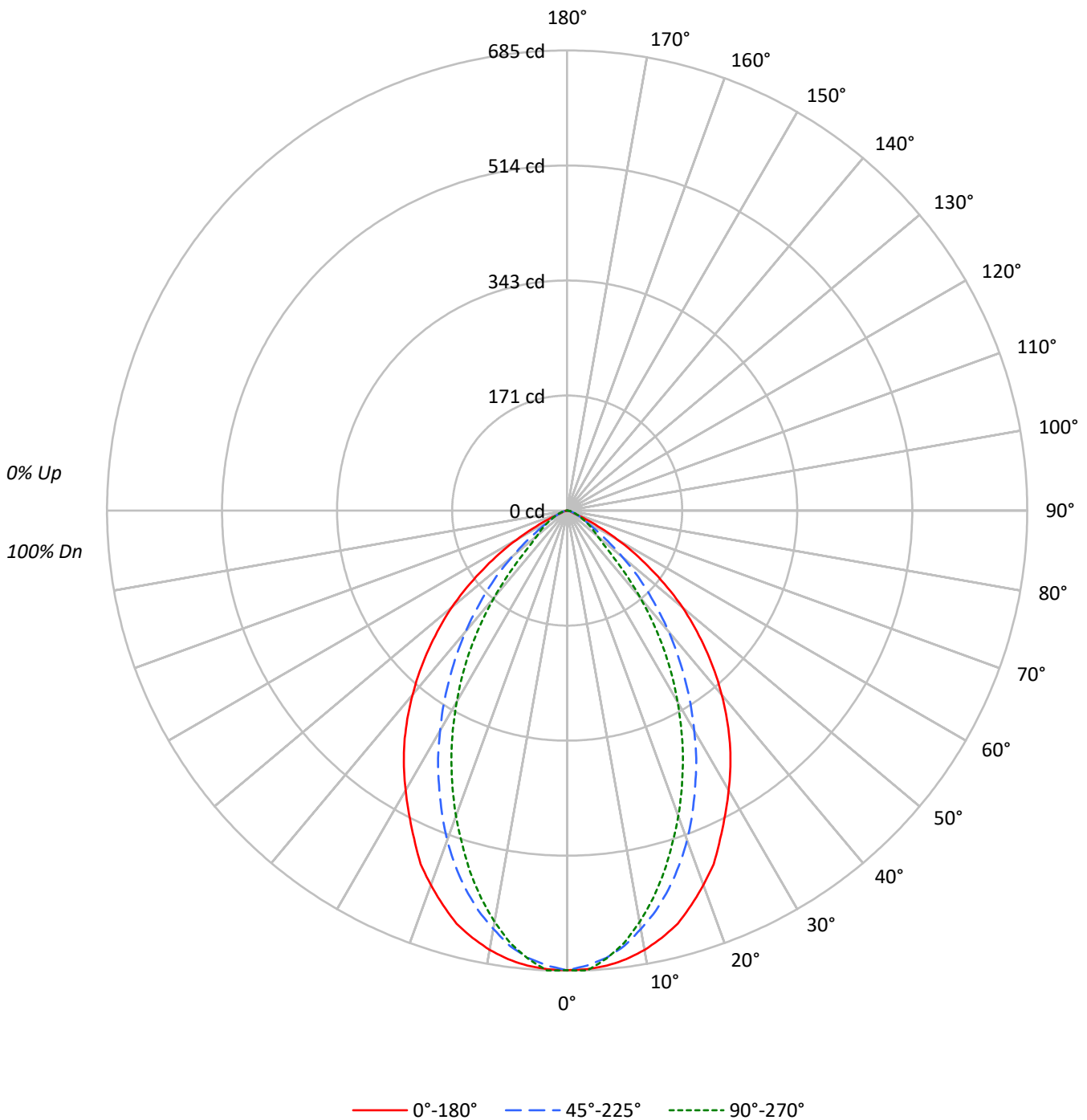
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 883.3 lumens  
Efficiency: N/A  
Efficacy: 34.2 lumens/watt  
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98  
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	109	106	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82
3	98	90	84	80	96	89	83	79	86	82	78	84	80	76	81	78	75	73
4	92	83	76	71	90	82	75	70	79	74	70	77	73	69	75	71	68	66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	62	58	68	62	57	66	61	57	65	60	56	55
7	76	65	58	53	74	64	57	53	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	67	56	49	45	66	56	49	44	55	48	44	54	48	44	53	48	44	42
10	64	52	46	41	63	52	46	41	51	45	41	50	45	41	49	44	41	39

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

	0°	45°	90°
0°	8034	8034	8034
5°	8015	7877	7890
10°	7918	7539	7413
15°	7739	7095	6772
20°	7411	6525	6048
25°	6985	5846	5284
30°	6521	5127	4451
35°	6058	4372	3584
40°	5488	3604	2598
45°	4837	2797	1566
50°	4101	1955	1065
55°	3122	1171	888
60°	2041	747	698
65°	853	558	558
70°	292	402	436
75°	240	290	336
80°	142	216	284
85°	148	148	283

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4837 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	63.2	7.2
10°-20°	165.4	18.7
20°-30°	212.1	24.0
30°-40°	199.0	22.5
40°-50°	138.8	15.7
50°-60°	71.8	8.1
60°-70°	24.5	2.8
70°-80°	7.0	0.8
80°-90°	1.5	0.2
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°	440.7	49.9
0°-40°	639.7	72.4
0°-60°	850.3	96.3
0°-90°	883.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	883.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	684	684	684	684	684	
5°	680	679	668	672	669	64
15°	637	621	584	564	557	178
25°	539	505	451	420	408	248
35°	423	371	305	266	250	263
45°	291	238	168	116	94	224
55°	152	114	57	44	43	137
65°	31	26	20	19	20	36
75°	5	5	6	7	7	5
85°	1	1	1	1	2	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	684.2	684.2	684.2	684.2	684.2
2.5°	683.2	684.2	677.9	684.2	685.3
5°	680.0	678.9	668.3	671.5	669.4
7.5°	673.6	670.5	653.5	649.3	649.3
10°	664.1	657.8	632.3	624.9	621.7
12.5°	651.4	642.9	610.1	596.3	591.0
15°	636.6	620.7	583.6	564.5	557.1
17.5°	615.4	594.2	554.0	531.7	520.1
20°	593.1	566.7	522.2	495.7	484.0
22.5°	569.8	538.1	487.2	458.6	445.9
25°	539.1	505.2	451.2	420.5	407.8
27.5°	509.5	473.5	416.3	381.3	368.6
30°	480.9	438.5	378.1	344.2	328.3
32.5°	452.3	404.6	342.1	305.0	290.2
35°	422.6	370.7	305.0	265.9	250.0
37.5°	390.8	337.9	270.1	227.7	208.7
40°	358.0	302.9	235.1	187.5	169.5
42.5°	325.2	271.2	200.2	151.5	130.3
45°	291.3	238.3	168.4	116.5	94.3
47.5°	257.4	205.5	137.7	84.7	71.0
50°	224.5	174.8	107.0	62.5	58.3
52.5°	188.5	145.1	80.5	51.9	50.8
55°	152.5	114.4	57.2	44.5	43.4
57.5°	120.7	89.0	41.3	37.1	36.0
60°	86.9	63.6	31.8	30.7	29.7
62.5°	57.2	43.4	25.4	24.4	24.4
65°	30.7	26.5	20.1	19.1	20.1
67.5°	12.7	14.8	14.8	15.9	15.9
70°	8.5	9.5	11.7	12.7	12.7
72.5°	6.4	7.4	8.5	9.5	9.5
75°	5.3	5.3	6.4	7.4	7.4
77.5°	3.2	4.2	4.2	5.3	6.4
80°	2.1	3.2	3.2	4.2	4.2
82.5°	1.1	2.1	2.1	3.2	3.2
85°	1.1	1.1	1.1	1.1	2.1
87.5°	0.0	0.0	0.0	0.0	1.1
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	13.57	14.83	13.94	15.15	15.46	7.08	8.34	7.45	8.65	8.97
	3H	13.53	14.64	13.91	14.97	15.33	7.86	8.96	8.24	9.30	9.66
	4H	13.47	14.50	13.88	14.85	15.24	8.06	9.09	8.46	9.44	9.82
	6H	13.40	14.35	13.82	14.72	15.11	8.20	9.14	8.62	9.51	9.91
	8H	13.36	14.25	13.79	14.64	15.05	8.24	9.13	8.67	9.52	9.93
	12H	13.32	14.17	13.75	14.55	14.98	8.25	9.11	8.69	9.49	9.92
4H	2H	13.42	14.45	13.82	14.80	15.19	7.34	8.37	7.74	8.72	9.10
	3H	13.41	14.24	13.82	14.64	15.05	8.24	9.08	8.66	9.48	9.89
	4H	13.35	14.10	13.79	14.52	14.96	8.51	9.26	8.95	9.68	10.12
	6H	13.30	13.93	13.76	14.38	14.85	8.73	9.37	9.20	9.82	10.28
	8H	13.24	13.84	13.71	14.29	14.76	8.79	9.39	9.26	9.84	10.31
	12H	13.20	13.72	13.69	14.21	14.68	8.83	9.35	9.32	9.84	10.31
8H	4H	13.24	13.84	13.71	14.28	14.76	8.50	9.09	8.97	9.54	10.01
	6H	13.18	13.66	13.68	14.16	14.64	8.77	9.25	9.27	9.75	10.23
	8H	13.13	13.56	13.65	14.08	14.57	8.87	9.31	9.40	9.83	10.32
	12H	13.09	13.47	13.61	13.97	14.54	8.95	9.33	9.47	9.83	10.40
12H	4H	13.19	13.72	13.68	14.20	14.68	8.46	8.98	8.95	9.47	9.94
	6H	13.12	13.55	13.64	14.07	14.57	8.73	9.16	9.25	9.68	10.17
	8H	13.09	13.47	13.61	13.97	14.54	8.87	9.25	9.38	9.75	10.32