

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1059772

Luminaire Tested: S123RDR-H775D927-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059772  
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: S123RDR-H775D927-X4F0-XX-UDD-SVL-B  
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

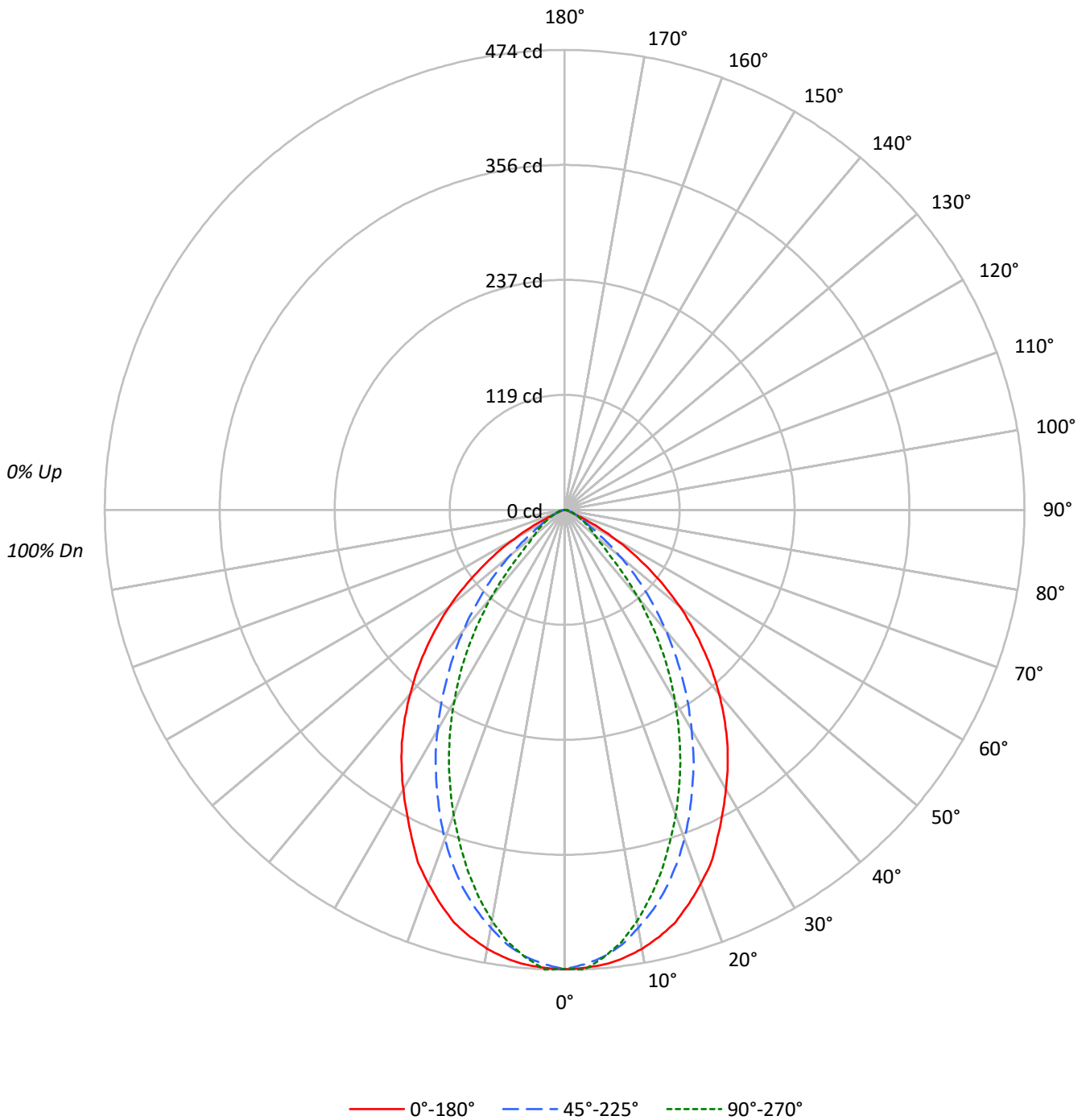
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 611.0 lumens  
Efficiency: N/A  
Efficacy: 26.0 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): 23.5  
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	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°	5558	5558	5558
5°	5545	5449	5458
10°	5478	5215	5128
15°	5353	4908	4685
20°	5127	4514	4184
25°	4831	4044	3655
30°	4510	3547	3079
35°	4190	3025	2478
40°	3795	2494	1797
45°	3346	1935	1083
50°	2837	1352	736
55°	2160	811	614
60°	1411	517	481
65°	589	386	386
70°	203	278	302
75°	168	200	231
80°	101	149	196
85°	94	94	202

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3346 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	43.7	7.2
10°-20°	114.4	18.7
20°-30°	146.7	24.0
30°-40°	137.7	22.5
40°-50°	96.0	15.7
50°-60°	49.7	8.1
60°-70°	17.0	2.8
70°-80°	4.9	0.8
80°-90°	1.0	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°	304.8	49.9
0°-40°	442.5	72.4
0°-60°	588.2	96.3
0°-90°	611.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	611.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	473	473	473	473	473	
5°	470	470	462	464	463	45
15°	440	429	404	390	385	123
25°	373	350	312	291	282	171
35°	292	256	211	184	173	182
45°	202	165	116	81	65	155
55°	106	79	40	31	30	95
65°	21	18	14	13	14	25
75°	4	4	4	5	5	4
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°	473.3	473.3	473.3	473.3	473.3
2.5°	472.6	473.3	468.9	473.3	474.0
5°	470.4	469.6	462.3	464.5	463.0
7.5°	466.0	463.8	452.1	449.1	449.1
10°	459.4	455.0	437.4	432.3	430.1
12.5°	450.6	444.7	422.0	412.5	408.8
15°	440.3	429.3	403.7	390.5	385.4
17.5°	425.7	411.0	383.2	367.8	359.7
20°	410.3	392.0	361.2	342.9	334.8
22.5°	394.2	372.2	337.0	317.2	308.5
25°	372.9	349.5	312.1	290.9	282.1
27.5°	352.4	327.5	287.9	263.8	255.0
30°	332.6	303.3	261.6	238.1	227.1
32.5°	312.8	279.9	236.7	211.0	200.7
35°	292.3	256.4	211.0	183.9	172.9
37.5°	270.4	233.7	186.8	157.5	144.3
40°	247.6	209.5	162.7	129.7	117.2
42.5°	224.9	187.6	138.5	104.8	90.1
45°	201.5	164.8	116.5	80.6	65.2
47.5°	178.0	142.1	95.2	58.6	49.1
50°	155.3	120.9	74.0	43.2	40.3
52.5°	130.4	100.4	55.7	35.9	35.2
55°	105.5	79.1	39.6	30.8	30.0
57.5°	83.5	61.5	28.6	25.6	24.9
60°	60.1	44.0	22.0	21.2	20.5
62.5°	39.6	30.0	17.6	16.9	16.9
65°	21.2	18.3	13.9	13.2	13.9
67.5°	8.8	10.3	10.3	11.0	11.0
70°	5.9	6.6	8.1	8.8	8.8
72.5°	4.4	5.1	5.9	6.6	6.6
75°	3.7	3.7	4.4	5.1	5.1
77.5°	2.2	2.9	2.9	3.7	4.4
80°	1.5	2.2	2.2	2.9	2.9
82.5°	0.7	1.5	1.5	2.2	2.2
85°	0.7	0.7	0.7	0.7	1.5
87.5°	0.0	0.0	0.0	0.0	0.7
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	12.29	13.55	12.65	13.86	14.18	5.79	7.05	6.15	7.36	7.67
	3H	12.24	13.35	12.62	13.68	14.05	6.57	7.67	6.95	8.01	8.37
	4H	12.19	13.22	12.59	13.57	13.96	6.77	7.80	7.17	8.15	8.53
	6H	12.12	13.06	12.53	13.43	13.83	6.91	7.85	7.33	8.22	8.62
	8H	12.08	12.97	12.51	13.36	13.77	6.95	7.84	7.38	8.23	8.63
	12H	12.03	12.88	12.47	13.27	13.70	6.96	7.82	7.40	8.20	8.63
4H	2H	12.13	13.16	12.54	13.52	13.90	6.04	7.07	6.45	7.43	7.81
	3H	12.12	12.96	12.53	13.36	13.76	6.96	7.79	7.37	8.20	8.60
	4H	12.07	12.81	12.51	13.23	13.68	7.23	7.97	7.66	8.39	8.84
	6H	12.01	12.65	12.48	13.10	13.57	7.44	8.08	7.91	8.53	9.00
	8H	11.96	12.55	12.43	13.00	13.48	7.50	8.10	7.98	8.55	9.02
	12H	11.91	12.44	12.40	12.92	13.40	7.54	8.07	8.03	8.55	9.03
8H	4H	11.96	12.55	12.43	13.00	13.47	7.21	7.81	7.68	8.25	8.73
	6H	11.89	12.38	12.40	12.88	13.36	7.48	7.96	7.98	8.46	8.94
	8H	11.84	12.28	12.37	12.80	13.29	7.59	8.02	8.11	8.54	9.03
	12H	11.80	12.19	12.32	12.69	13.26	7.66	8.05	8.18	8.54	9.11
12H	4H	11.91	12.43	12.40	12.92	13.39	7.17	7.70	7.66	8.18	8.66
	6H	11.84	12.27	12.36	12.79	13.28	7.44	7.88	7.97	8.39	8.89
	8H	11.81	12.19	12.32	12.69	13.26	7.58	7.96	8.10	8.46	9.03