

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: P1059780

Luminaire Tested: S123RDRP-H775D930-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059780  
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-H775D930-X4F0-XX-UDD-BVL-W  
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

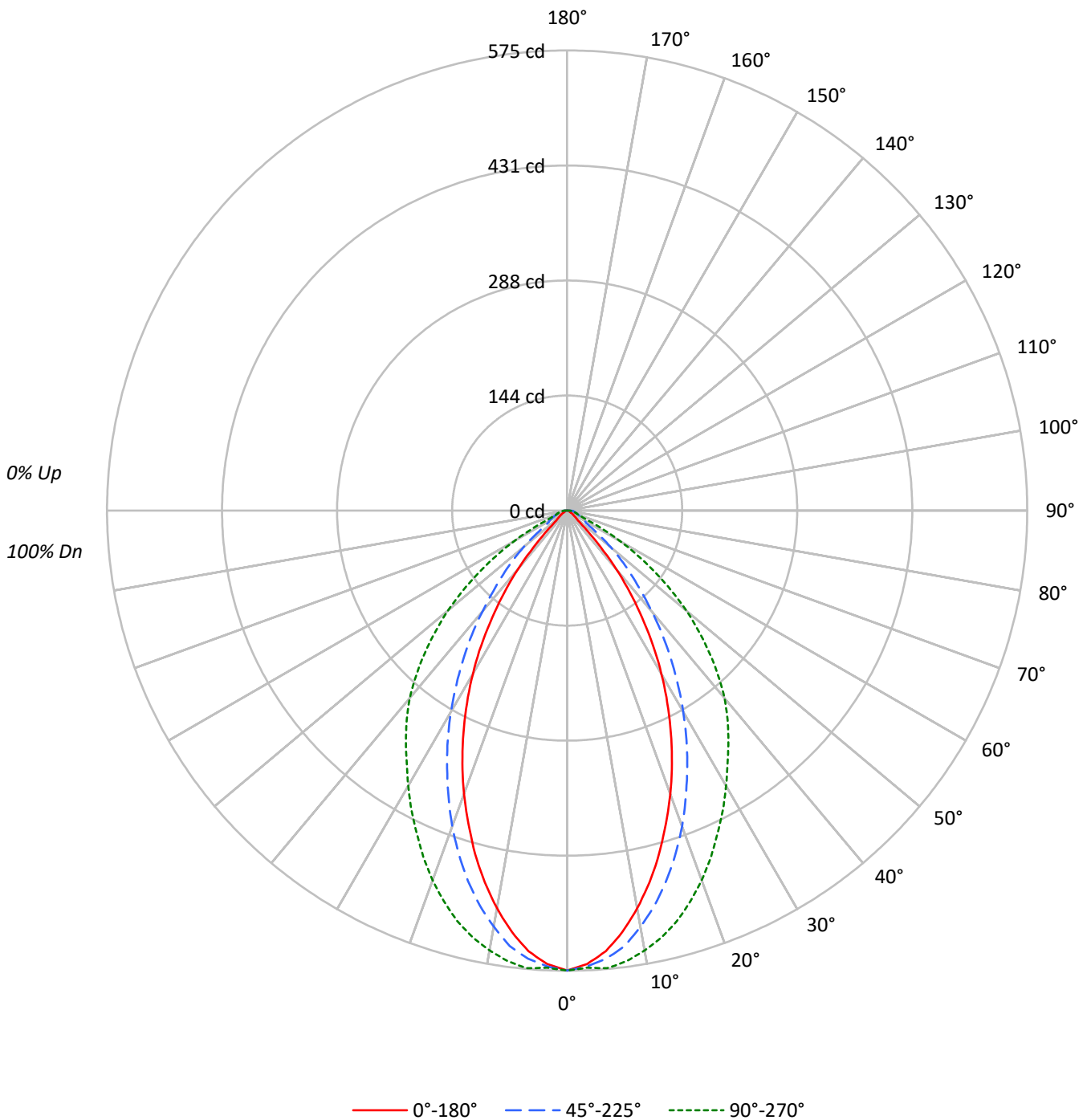
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 690.0 lumens  
Efficiency: N/A  
Efficacy: 29.4 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): 23.5  
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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92
2	105	99	94	90	102	97	92	88	94	90	86	91	87	85	88	85	83
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75
4	92	83	76	71	90	81	75	70	79	74	70	77	72	69	75	71	68
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57
7	76	65	58	53	75	65	58	53	63	57	53	62	56	52	61	56	52
8	72	61	54	49	70	60	53	49	59	53	49	58	52	48	57	52	48
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	42

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

	0°	45°	90°
0°	6748	6748	6748
5°	6516	6623	6766
10°	6015	6294	6655
15°	5399	5821	6454
20°	4709	5247	6143
25°	3972	4598	5763
30°	3194	3932	5386
35°	2338	3237	5034
40°	1459	2523	4689
45°	551	1881	4176
50°	261	1297	3559
55°	201	710	2751
60°	141	604	1808
65°	106	525	756
70°	103	491	491
75°	136	513	513
80°	203	615	561
85°	404	1024	808

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4176 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	52.8	7.6
10°-20°	135.3	19.6
20°-30°	167.5	24.3
30°-40°	150.1	21.8
40°-50°	98.4	14.3
50°-60°	49.3	7.1
60°-70°	19.2	2.8
70°-80°	10.8	1.6
80°-90°	6.7	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°	355.5	51.5
0°-40°	505.6	73.3
0°-60°	653.3	94.7
0°-90°	690.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	690.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	575	575	575	575	575	
5°	553	562	562	568	574	51
15°	444	462	479	510	531	124
25°	307	326	355	406	445	140
35°	163	185	226	294	351	102
45°	33	54	113	194	252	32
55°	10	12	35	95	134	9
65°	4	11	19	25	27	4
75°	3	11	11	11	11	3
85°	3	8	8	8	6	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	574.7	574.7	574.7	574.7	574.7
2.5°	567.2	575.5	570.2	570.9	571.7
5°	552.8	561.9	561.9	567.9	574.0
7.5°	530.9	541.5	549.0	559.6	567.9
10°	504.5	517.3	527.9	546.8	558.1
12.5°	475.8	491.6	505.2	530.2	546.0
15°	444.1	462.2	478.8	510.5	530.9
17.5°	410.1	428.2	450.1	487.1	512.0
20°	376.8	395.0	419.9	461.4	491.6
22.5°	342.1	361.0	387.4	433.5	469.0
25°	306.6	325.5	354.9	405.5	444.8
27.5°	271.1	290.0	323.2	378.4	421.4
30°	235.6	254.5	290.0	348.9	397.2
32.5°	200.1	220.5	257.5	321.7	373.1
35°	163.1	185.0	225.8	293.8	351.2
37.5°	129.1	149.5	195.6	269.6	329.3
40°	95.2	117.1	164.6	246.2	305.9
42.5°	61.9	85.3	136.7	220.5	279.4
45°	33.2	53.6	113.3	194.1	251.5
47.5°	18.1	29.5	91.4	166.1	222.8
50°	14.3	16.6	71.0	142.0	194.8
52.5°	12.1	13.6	50.6	119.3	163.9
55°	9.8	12.1	34.7	95.2	134.4
57.5°	8.3	10.6	27.2	74.0	105.0
60°	6.0	9.1	25.7	54.4	77.0
62.5°	4.5	9.8	22.7	37.8	50.6
65°	3.8	11.3	18.9	24.9	27.2
67.5°	3.0	12.1	16.6	15.9	15.9
70°	3.0	11.3	14.3	13.6	14.3
72.5°	3.0	12.1	12.8	12.1	12.8
75°	3.0	11.3	11.3	11.3	11.3
77.5°	3.0	10.6	10.6	9.8	9.8
80°	3.0	9.1	9.1	9.1	8.3
82.5°	3.0	8.3	8.3	8.3	6.8
85°	3.0	7.6	7.6	7.6	6.0
87.5°	2.3	6.8	7.6	6.8	4.5
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	0.26	0.00	0.57	0.89	13.24	14.49	13.60	14.81	15.12
	3H	1.32	2.43	1.70	2.77	3.13	13.32	14.43	13.70	14.76	15.13
	4H	2.42	3.45	2.82	3.81	4.19	13.40	14.43	13.80	14.78	15.16
	6H	3.41	4.36	3.83	4.73	5.12	13.50	14.45	13.91	14.82	15.21
	8H	3.89	4.79	4.32	5.18	5.58	13.56	14.46	13.99	14.85	15.25
	12H	4.44	5.30	4.88	5.68	6.12	13.64	14.50	14.07	14.88	15.31
4H	2H	2.25	3.28	2.65	3.64	4.02	13.09	14.13	13.50	14.48	14.86
	3H	4.56	5.40	4.97	5.81	6.21	13.27	14.11	13.68	14.52	14.92
	4H	5.92	6.68	6.36	7.10	7.54	13.42	14.17	13.85	14.59	15.04
	6H	7.01	7.67	7.48	8.11	8.58	13.64	14.30	14.11	14.74	15.21
	8H	7.47	8.08	7.94	8.53	9.00	13.77	14.38	14.24	14.83	15.30
	12H	7.96	8.50	8.45	8.98	9.46	13.94	14.48	14.43	14.96	15.44
8H	4H	6.90	7.51	7.37	7.96	8.43	13.42	14.03	13.89	14.47	14.95
	6H	8.43	8.93	8.93	9.42	9.91	13.75	14.25	14.26	14.75	15.23
	8H	9.20	9.65	9.72	10.16	10.66	13.99	14.44	14.51	14.95	15.45
	12H	10.01	10.40	10.52	10.90	11.47	14.32	14.72	14.84	15.22	15.79
12H	4H	7.08	7.61	7.56	8.10	8.57	13.40	13.94	13.89	14.42	14.90
	6H	8.74	9.19	9.27	9.71	10.20	13.77	14.22	14.30	14.74	15.23
	8H	9.70	10.10	10.21	10.59	11.16	14.08	14.48	14.60	14.98	15.55