

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: P1059785

Luminaire Tested: S123RDR-H775D930-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059785
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-67)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H775D930-X4F0-XX-UDD-WVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

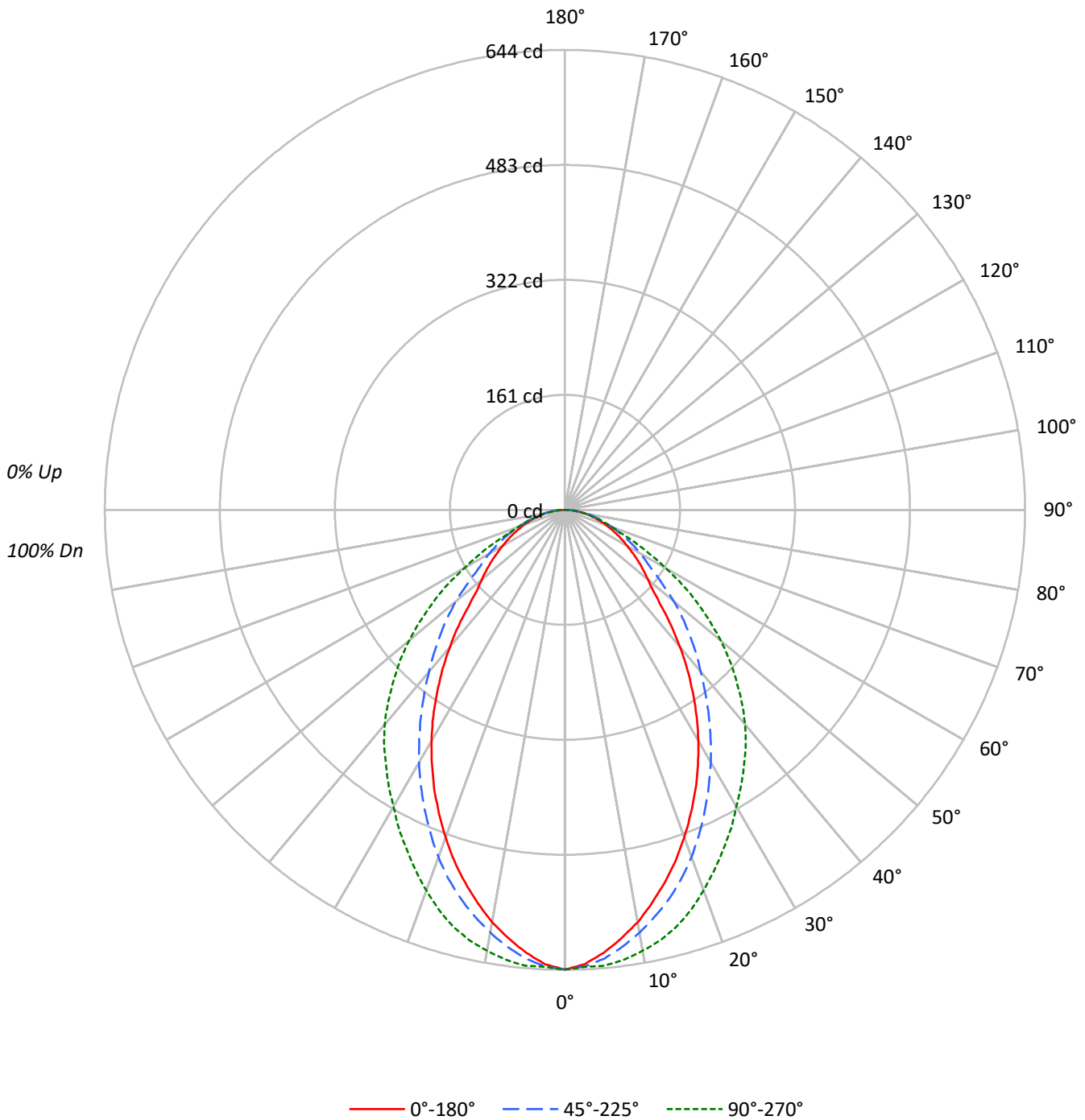
Lumens per Lamp: N/A
Luminaire Lumens: 1162.6 lumens
Efficiency: N/A
Efficacy: 49.5 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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																		
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	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	100	100	97	97	97	94	94	94	91	91	91	87																
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87	87	87	84	84	84	81	81	81	78	78	78	75																
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75	75	75	72	72	72	69	69	69	66	66	66	63																
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65	65	65	62	62	62	59	59	59	56	56	56	53																
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57	57	57	54	54	54	51	51	51	48	48	48	45																
5	80	69	60	54	78	68	60	54	66	59	54	64	58	53	62	57	53	51	51	51	48	48	48	45	45	45	42	42	42	39																
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45	45	45	42	42	42	39	39	39	36	36	36	33																
7	70	57	49	44	68	56	49	43	55	48	43	54	47	43	52	47	43	41	41	41	38	38	38	35	35	35	32	32	32	29																
8	65	53	45	39	64	52	45	39	51	44	39	50	43	39	48	43	39	37	37	37	34	34	34	31	31	31	28	28	28	25																
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	39	35	33	33	33	30	30	30	27	27	27	24	24	24	21																
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31	31	31	28	28	28	25	25	25	22	22	22	19																

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7557	7557	7557
5°	7338	7435	7551
10°	6990	7170	7476
15°	6567	6851	7346
20°	6101	6468	7090
25°	5601	6012	6794
30°	5064	5535	6507
35°	4467	5029	6261
40°	3840	4534	6013
45°	3157	4085	5638
50°	2771	3639	5195
55°	2563	3106	4602
60°	2356	2853	3809
65°	2201	2620	2998
70°	2074	2383	2383
75°	1951	2191	2055
80°	1839	1988	1738
85°	1725	1927	1320

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5638 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.5	5.1
10°-20°	159.5	13.7
20°-30°	216.3	18.6
30°-40°	226.2	19.5
40°-50°	196.2	16.9
50°-60°	145.9	12.6
60°-70°	93.6	8.1
70°-80°	50.2	4.3
80°-90°	15.2	1.3
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°	435.3	37.4
0°-40°	661.5	56.9
0°-60°	1003.6	86.3
0°-90°	1162.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1162.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	644	644	644	644	644	
5°	622	633	631	635	641	58
15°	540	553	564	586	604	151
25°	432	446	464	495	524	198
35°	312	327	351	395	437	195
45°	190	204	246	299	340	150
55°	125	128	152	195	225	112
65°	79	86	94	100	108	79
75°	43	50	48	46	45	46
85°	13	16	14	12	10	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	643.6	643.6	643.6	643.6	643.6
2.5°	636.8	645.8	639.8	639.8	640.6
5°	622.5	633.0	630.8	635.3	640.6
7.5°	605.1	616.4	617.2	627.7	635.3
10°	586.2	597.6	601.3	616.4	627.0
12.5°	563.6	576.4	583.2	602.1	617.2
15°	540.2	553.0	563.6	586.2	604.3
17.5°	515.3	528.1	541.7	567.4	587.0
20°	488.2	501.7	517.6	543.2	567.4
22.5°	460.2	474.6	491.2	519.1	546.2
25°	432.3	445.9	464.0	494.9	524.4
27.5°	402.9	417.2	436.1	470.0	503.2
30°	373.5	387.8	408.2	444.4	479.9
32.5°	343.3	357.6	379.5	420.3	458.7
35°	311.6	326.7	350.8	395.4	436.8
37.5°	281.4	295.8	322.9	372.0	415.7
40°	250.5	265.6	295.8	348.6	392.3
42.5°	220.3	235.4	270.9	323.7	366.7
45°	190.1	204.5	246.0	298.8	339.5
47.5°	166.7	177.3	222.6	272.4	313.1
50°	151.7	155.4	199.2	246.7	284.4
52.5°	138.1	141.1	173.5	221.1	255.0
55°	125.2	128.3	151.7	194.7	224.8
57.5°	112.4	116.2	135.1	167.5	194.7
60°	100.3	104.9	121.5	143.4	162.2
62.5°	89.8	95.1	107.9	121.5	134.3
65°	79.2	86.0	94.3	100.3	107.9
67.5°	69.4	77.0	81.5	83.0	83.7
70°	60.4	67.9	69.4	69.4	69.4
72.5°	51.3	59.6	58.1	57.3	56.6
75°	43.0	49.8	48.3	46.0	45.3
77.5°	34.7	40.7	38.5	37.0	34.7
80°	27.2	31.7	29.4	27.9	25.7
82.5°	20.4	23.4	21.1	19.6	17.4
85°	12.8	15.8	14.3	12.1	9.8
87.5°	6.8	9.1	7.5	6.8	3.8
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	13.81	15.30	14.18	15.61	15.92	16.57	18.05	16.93	18.37	18.68
	3H	15.52	16.85	15.90	17.18	17.54	17.59	18.92	17.97	19.25	19.61
	4H	16.18	17.43	16.58	17.78	18.16	17.96	19.20	18.36	19.55	19.93
	6H	16.68	17.83	17.10	18.20	18.59	18.21	19.36	18.62	19.73	20.12
	8H	16.86	17.96	17.29	18.35	18.75	18.28	19.38	18.71	19.77	20.17
	12H	16.99	18.04	17.42	18.42	18.85	18.32	19.36	18.75	19.75	20.18
4H	2H	14.59	15.83	14.99	16.18	16.56	16.84	18.09	17.24	18.43	18.81
	3H	16.51	17.55	16.93	17.95	18.35	18.09	19.13	18.50	19.53	19.93
	4H	17.32	18.25	17.76	18.67	19.11	18.58	19.51	19.01	19.93	20.37
	6H	17.97	18.77	18.42	19.22	19.68	18.96	19.77	19.42	20.21	20.67
	8H	18.19	18.95	18.66	19.39	19.86	19.07	19.83	19.54	20.27	20.74
	12H	18.37	19.04	18.85	19.52	19.99	19.14	19.82	19.63	20.30	20.77
8H	4H	17.64	18.40	18.11	18.84	19.31	18.77	19.53	19.24	19.97	20.44
	6H	18.44	19.06	18.93	19.55	20.03	19.26	19.88	19.76	20.38	20.85
	8H	18.76	19.32	19.28	19.84	20.32	19.44	20.00	19.95	20.51	21.00
	12H	19.04	19.54	19.55	20.03	20.60	19.57	20.07	20.08	20.56	21.12
12H	4H	17.67	18.34	18.15	18.82	19.29	18.79	19.46	19.27	19.94	20.41
	6H	18.49	19.05	19.01	19.56	20.05	19.30	19.86	19.81	20.37	20.86
	8H	18.88	19.38	19.39	19.87	20.44	19.53	20.02	20.04	20.52	21.08