

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: P1059738

Luminaire Tested: S123RDR-H775D830-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059738
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-65)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H775D830-X4F0-XX-UDD-SVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

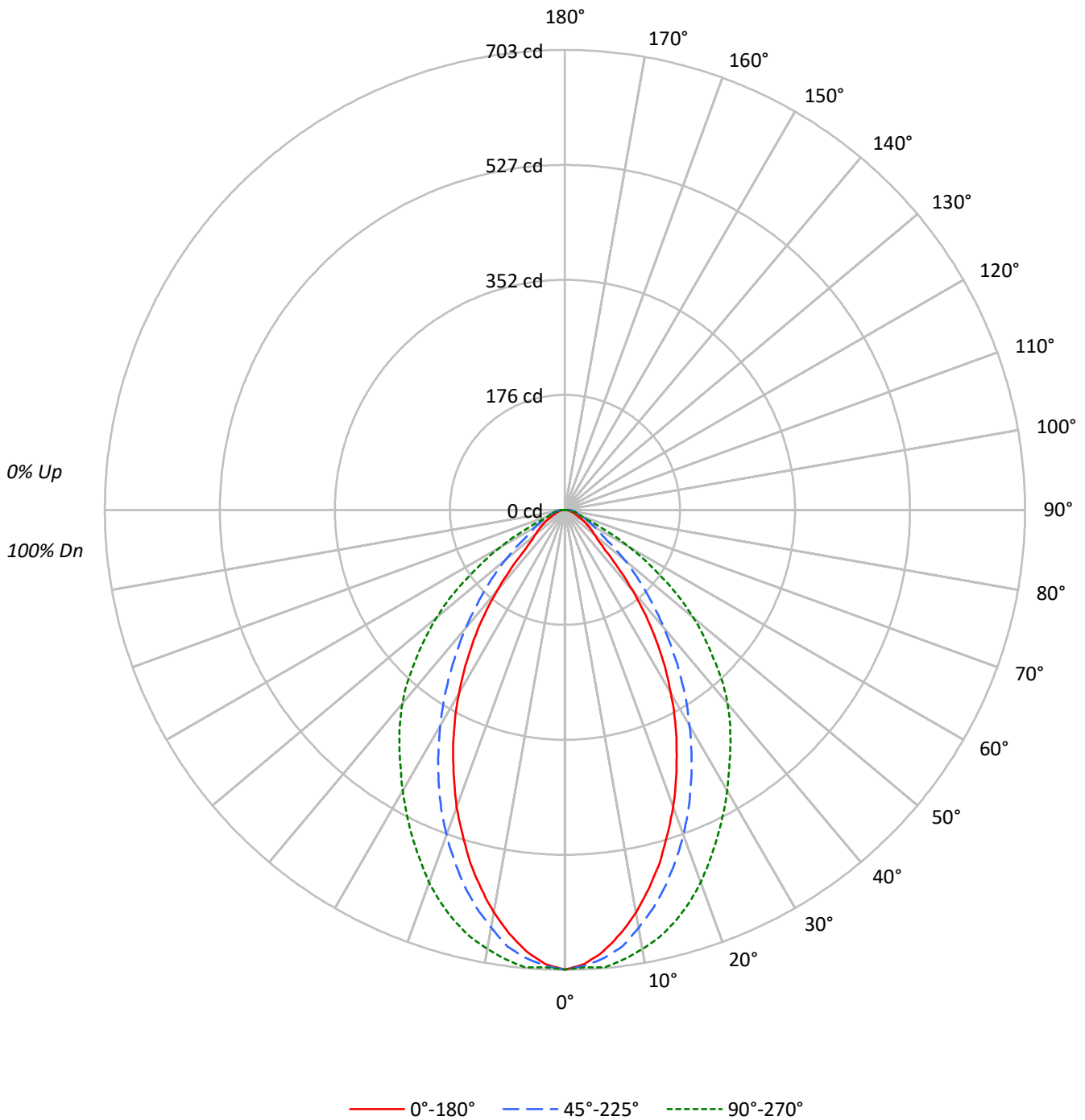
Lumens per Lamp: N/A
Luminaire Lumens: 943.2 lumens
Efficiency: N/A
Efficacy: 40.1 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 1.08 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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									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																												
1	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89																												
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79																												
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71																												
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66	64																												
5	85	74	67	61	83	73	66	61	71	65	60	69	64	60	68	63	59	58																												
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52																												
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48																												
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44																												
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40																												
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8251	8251	8251
5°	7984	8107	8272
10°	7452	7732	8128
15°	6791	7226	7916
20°	6043	6610	7580
25°	5236	5915	7148
30°	4390	5161	6723
35°	3479	4392	6319
40°	2462	3613	5928
45°	1450	2856	5334
50°	1085	2168	4671
55°	911	1466	3753
60°	737	1249	2666
65°	581	1067	1406
70°	508	930	869
75°	476	871	830
80°	473	947	825
85°	593	1415	1064

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5334 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.7	6.9
10°-20°	168.1	17.8
20°-30°	214.0	22.7
30°-40°	201.3	21.3
40°-50°	145.0	15.4
50°-60°	83.7	8.9
60°-70°	38.3	4.1
70°-80°	19.1	2.0
80°-90°	9.0	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°	446.8	47.4
0°-40°	648.1	68.7
0°-60°	876.8	93.0
0°-90°	943.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	943.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	703	703	703	703	703	
5°	677	689	688	695	702	63
15°	559	579	594	628	651	156
25°	404	425	456	507	552	185
35°	243	264	306	377	441	151
45°	87	109	172	258	321	74
55°	44	46	72	136	183	40
65°	21	30	38	43	51	21
75°	10	20	19	18	18	11
85°	4	10	10	10	8	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	702.7	702.7	702.7	702.7	702.7
2.5°	694.8	703.5	697.4	698.3	700.0
5°	677.3	688.7	687.8	694.8	701.8
7.5°	652.9	666.0	673.0	683.5	693.1
10°	625.0	639.8	648.5	667.7	681.7
12.5°	592.7	611.9	623.2	648.5	668.6
15°	558.6	578.7	594.4	627.6	651.2
17.5°	520.2	542.0	562.1	601.4	630.2
20°	483.6	504.5	529.0	571.7	606.6
22.5°	443.4	466.1	494.0	539.4	578.7
25°	404.1	425.1	456.5	507.1	551.7
27.5°	364.9	385.8	419.0	474.8	523.7
30°	323.8	345.7	380.6	442.5	495.8
32.5°	283.7	304.6	343.9	411.1	467.0
35°	242.7	263.6	306.4	377.1	440.8
37.5°	202.5	224.3	269.7	349.1	414.6
40°	160.6	184.2	235.7	320.3	386.7
42.5°	121.3	146.6	201.6	290.7	356.1
45°	87.3	109.1	172.0	258.4	321.2
47.5°	68.1	79.4	144.9	225.2	288.9
50°	59.4	61.1	118.7	194.6	255.7
52.5°	51.5	53.2	93.4	165.8	220.8
55°	44.5	46.3	71.6	136.2	183.3
57.5°	37.5	40.2	59.4	108.2	147.5
60°	31.4	34.9	53.2	82.9	113.5
62.5°	25.3	31.4	45.4	61.1	81.2
65°	20.9	29.7	38.4	42.8	50.6
67.5°	17.5	27.1	32.3	30.6	29.7
70°	14.8	24.4	27.1	24.4	25.3
72.5°	12.2	22.7	22.7	20.9	20.9
75°	10.5	20.1	19.2	18.3	18.3
77.5°	8.7	17.5	16.6	15.7	14.8
80°	7.0	14.0	14.0	13.1	12.2
82.5°	6.1	11.3	11.3	11.3	9.6
85°	4.4	9.6	10.5	9.6	7.9
87.5°	3.5	8.7	8.7	7.9	5.2
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	7.31	8.63	7.67	8.94	9.25	14.66	15.98	15.03	16.30	16.61
	3H	8.70	9.87	9.08	10.20	10.56	14.89	16.06	15.27	16.39	16.76
	4H	9.25	10.34	9.65	10.69	11.07	15.01	16.10	15.41	16.45	16.83
	6H	9.68	10.68	10.10	11.06	11.45	15.12	16.12	15.54	16.50	16.89
	8H	9.86	10.81	10.29	11.20	11.60	15.17	16.12	15.60	16.51	16.92
	12H	10.02	10.92	10.45	11.31	11.74	15.23	16.14	15.67	16.52	16.96
4H	2H	8.41	9.50	8.81	9.85	10.23	14.62	15.71	15.02	16.06	16.45
	3H	10.07	10.96	10.48	11.36	11.77	14.98	15.88	15.40	16.28	16.68
	4H	10.88	11.68	11.31	12.10	12.54	15.18	15.98	15.61	16.40	16.84
	6H	11.52	12.21	11.98	12.65	13.12	15.41	16.10	15.87	16.54	17.01
	8H	11.75	12.40	12.22	12.84	13.31	15.51	16.15	15.98	16.60	17.07
	12H	11.96	12.53	12.45	13.02	13.49	15.64	16.21	16.12	16.69	17.17
8H	4H	11.32	11.97	11.79	12.41	12.88	15.22	15.86	15.69	16.31	16.78
	6H	12.23	12.76	12.74	13.26	13.74	15.54	16.07	16.05	16.57	17.05
	8H	12.65	13.13	13.17	13.64	14.13	15.73	16.21	16.25	16.73	17.22
	12H	13.07	13.49	13.58	13.98	14.56	15.98	16.41	16.50	16.90	17.47
12H	4H	11.38	11.95	11.86	12.43	12.91	15.21	15.78	15.69	16.26	16.73
	6H	12.37	12.84	12.89	13.36	13.85	15.56	16.04	16.08	16.55	17.04
	8H	12.90	13.32	13.42	13.82	14.39	15.82	16.24	16.33	16.73	17.30