

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: P1059764

Luminaire Tested: S123RDR-H775D850-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059764
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-68)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H775D850-X4F0-XX-UDD-SVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

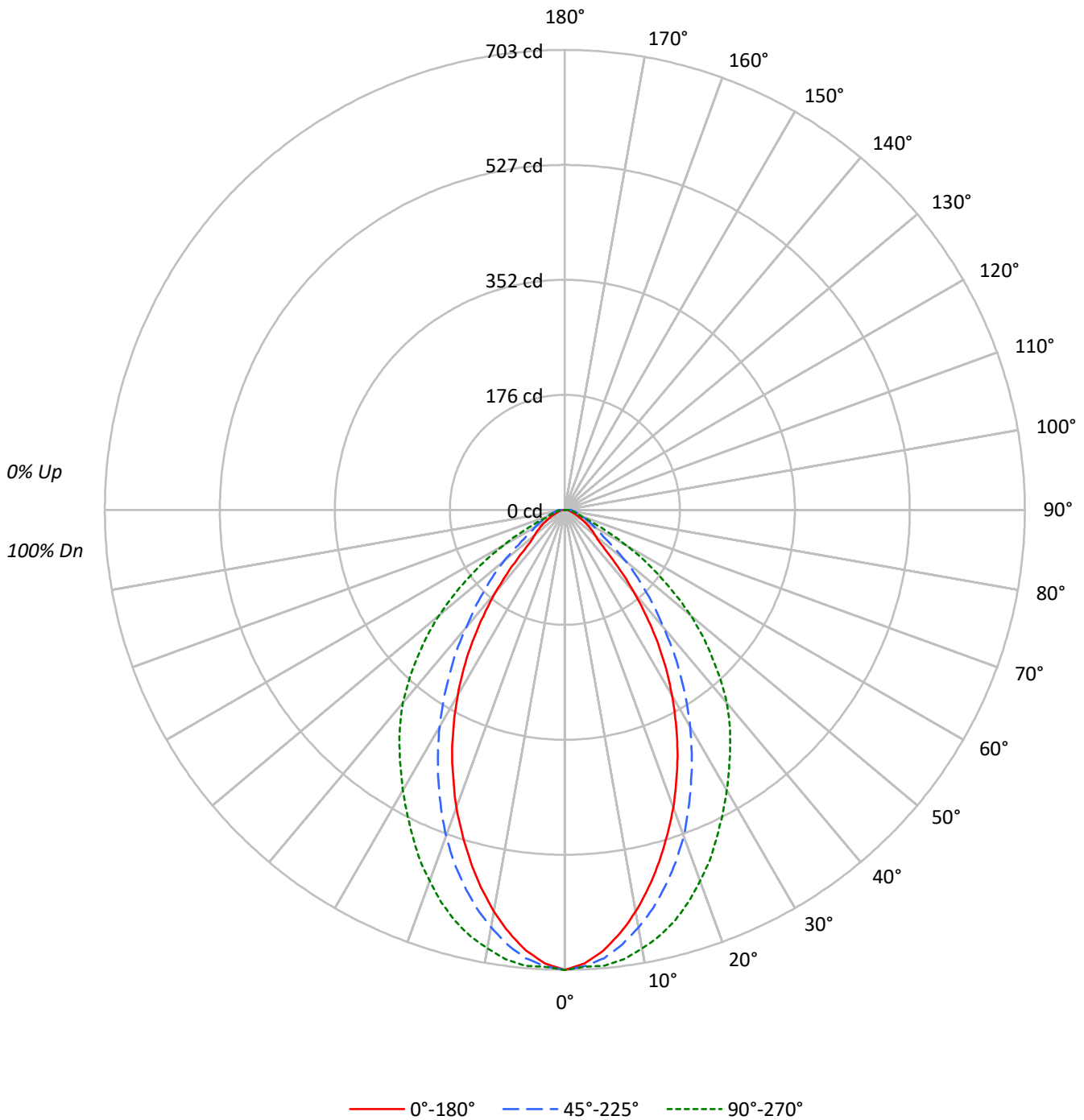
Lumens per Lamp: N/A
Luminaire Lumens: 941.9 lumens
Efficiency: N/A
Efficacy: 40.1 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.07 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	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
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89				89
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79				79
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71				71
4	91	81	74	69	88	80	73	68	77	72	67	75	70	66	73	69	66	64				64
5	85	74	67	61	83	73	66	61	71	65	61	69	64	60	68	63	59	58				58
6	79	68	61	56	78	67	60	55	66	60	55	64	59	54	63	58	54	52				52
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48				48
8	70	58	51	46	69	58	51	46	57	50	46	56	50	46	54	49	45	44				44
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40				40
10	62	51	44	39	61	50	44	39	50	43	39	49	43	39	48	43	39	37				37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8258	8258	8258
5°	7975	8108	8242
10°	7431	7725	8116
15°	6765	7227	7901
20°	6056	6633	7544
25°	5281	5920	7130
30°	4441	5193	6710
35°	3532	4401	6315
40°	2518	3588	5902
45°	1501	2881	5286
50°	1107	2194	4576
55°	925	1492	3636
60°	747	1231	2555
65°	600	1056	1370
70°	494	917	845
75°	467	885	794
80°	487	974	764
85°	687	1388	970

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5286 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.6	6.9
10°-20°	167.8	17.8
20°-30°	214.1	22.7
30°-40°	201.4	21.4
40°-50°	144.7	15.4
50°-60°	83.0	8.8
60°-70°	37.9	4.0
70°-80°	19.1	2.0
80°-90°	9.3	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°	446.5	47.4
0°-40°	647.9	68.8
0°-60°	875.6	93.0
0°-90°	941.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	941.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	703	703	703	703	703	
5°	677	690	688	693	699	63
15°	556	576	594	626	650	155
25°	408	426	457	506	550	186
35°	246	264	307	377	440	153
45°	90	110	174	256	318	76
55°	45	46	73	134	178	41
65°	22	30	38	42	49	22
75°	10	20	20	18	18	11
85°	5	10	10	9	7	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	703.3	703.3	703.3	703.3	703.3
2.5°	694.1	704.4	698.2	698.2	699.2
5°	676.6	690.0	687.9	693.1	699.2
7.5°	652.0	666.4	670.5	682.8	693.1
10°	623.2	639.7	647.9	667.4	680.7
12.5°	591.4	609.9	623.2	647.9	667.4
15°	556.5	576.0	594.5	626.3	649.9
17.5°	520.6	540.1	563.7	600.7	628.4
20°	484.6	504.1	530.8	569.9	603.7
22.5°	445.6	465.1	493.9	538.0	579.1
25°	407.6	426.1	456.9	506.2	550.3
27.5°	367.6	386.1	419.9	473.3	522.6
30°	327.5	346.0	383.0	440.5	494.9
32.5°	287.5	305.0	345.0	408.7	467.2
35°	246.4	263.9	307.0	376.8	440.5
37.5°	204.3	221.8	272.1	348.1	413.8
40°	164.3	183.8	234.1	319.3	385.0
42.5°	125.3	145.8	203.3	288.5	352.2
45°	90.4	109.9	173.5	255.7	318.3
47.5°	68.8	79.1	146.8	222.8	285.4
50°	60.6	61.6	120.1	193.0	250.5
52.5°	52.4	53.4	93.4	164.3	213.6
55°	45.2	46.2	72.9	134.5	177.6
57.5°	38.0	40.0	59.6	106.8	142.7
60°	31.8	35.9	52.4	81.1	108.8
62.5°	25.7	32.9	45.2	59.6	78.0
65°	21.6	29.8	38.0	42.1	49.3
67.5°	17.5	27.7	31.8	29.8	29.8
70°	14.4	24.6	26.7	24.6	24.6
72.5°	12.3	23.6	22.6	20.5	20.5
75°	10.3	20.5	19.5	17.5	17.5
77.5°	9.2	17.5	16.4	15.4	14.4
80°	7.2	14.4	14.4	13.3	11.3
82.5°	6.2	12.3	12.3	11.3	9.2
85°	5.1	10.3	10.3	9.2	7.2
87.5°	4.1	9.2	9.2	8.2	5.1
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	7.31	8.63	7.68	8.94	9.26	14.54	15.86	14.91	16.17	16.49
	3H	8.72	9.89	9.10	10.22	10.58	14.78	15.95	15.16	16.28	16.64
	4H	9.28	10.37	9.68	10.72	11.10	14.89	15.98	15.29	16.33	16.71
	6H	9.74	10.74	10.15	11.11	11.50	14.99	16.00	15.41	16.37	16.76
	8H	9.93	10.88	10.36	11.27	11.67	15.04	15.99	15.47	16.38	16.79
	12H	10.12	11.02	10.55	11.41	11.84	15.09	16.00	15.52	16.38	16.81
4H	2H	8.39	9.48	8.79	9.83	10.21	14.50	15.59	14.91	15.94	16.33
	3H	10.08	10.97	10.49	11.38	11.78	14.87	15.77	15.29	16.17	16.57
	4H	10.91	11.71	11.35	12.13	12.57	15.06	15.86	15.49	16.28	16.72
	6H	11.57	12.26	12.04	12.71	13.18	15.28	15.97	15.74	16.42	16.88
	8H	11.83	12.48	12.30	12.92	13.39	15.38	16.02	15.85	16.47	16.94
	12H	12.09	12.66	12.57	13.14	13.61	15.50	16.07	15.98	16.55	17.02
8H	4H	11.35	11.99	11.82	12.44	12.91	15.10	15.75	15.57	16.19	16.67
	6H	12.30	12.83	12.81	13.33	13.81	15.43	15.96	15.94	16.46	16.94
	8H	12.77	13.25	13.29	13.76	14.25	15.62	16.10	16.14	16.61	17.11
	12H	13.25	13.67	13.76	14.16	14.74	15.85	16.28	16.37	16.77	17.34
12H	4H	11.41	11.98	11.89	12.46	12.94	15.09	15.67	15.58	16.15	16.62
	6H	12.45	12.93	12.97	13.44	13.93	15.46	15.94	15.98	16.45	16.94
	8H	13.04	13.47	13.56	13.96	14.53	15.72	16.14	16.23	16.64	17.21