

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: P1059812

Luminaire Tested: S123RDR-H775D950-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059812
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-H775D950-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: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

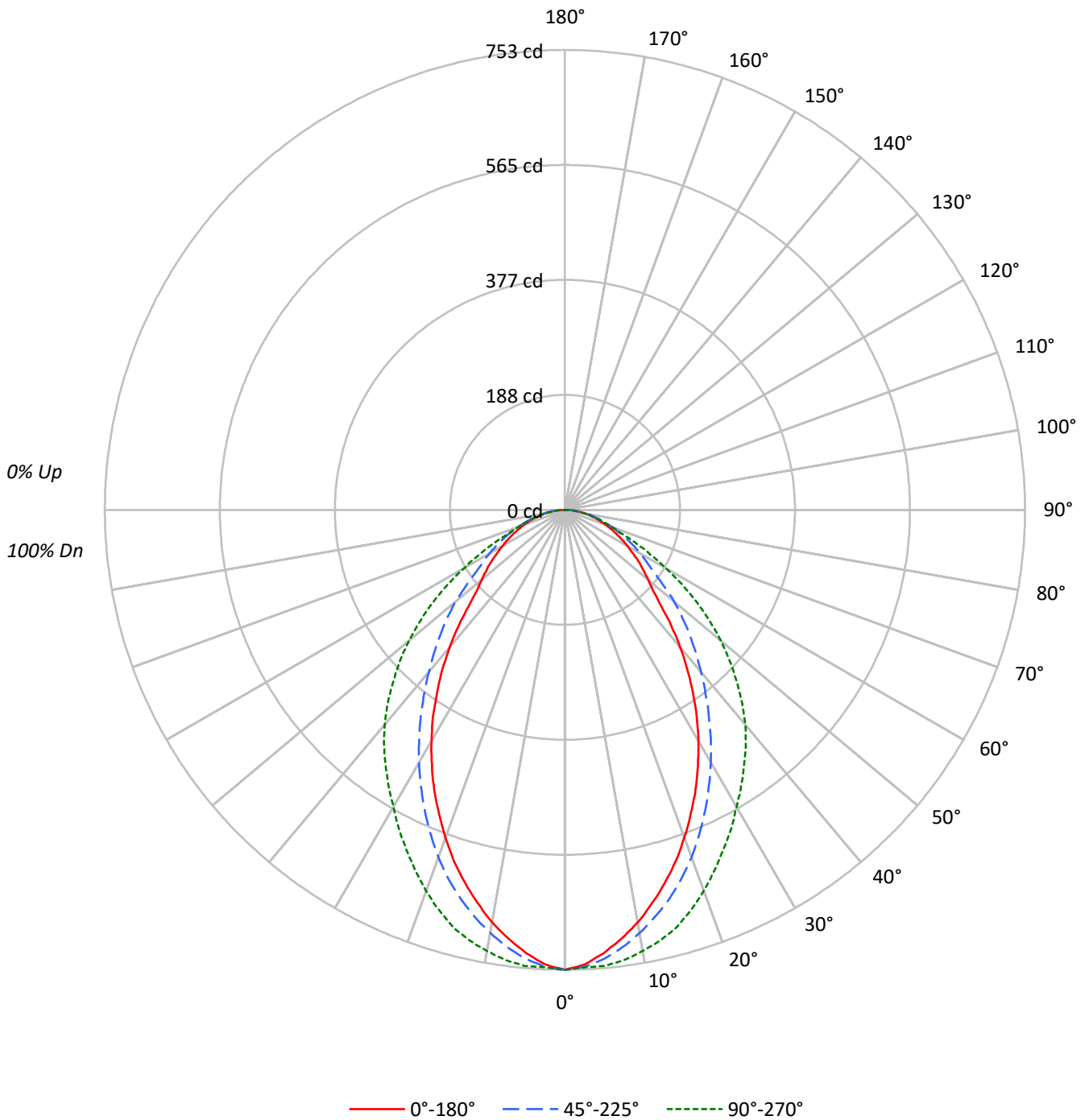
Lumens per Lamp: N/A
Luminaire Lumens: 1360.3 lumens
Efficiency: N/A
Efficacy: 57.9 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	0																	
RCR																																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																				
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87																				
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75																				
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65																				
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57																				
5	80	69	60	54	78	68	60	54	66	59	54	64	58	53	62	57	53	51																				
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45																				
7	70	57	49	44	68	56	49	43	55	48	43	54	47	43	52	47	43	41																				
8	65	53	45	39	64	52	45	39	51	44	39	50	43	39	48	43	39	37																				
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	39	35	34																				
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8843	8843	8843
5°	8585	8700	8835
10°	8180	8389	8747
15°	7684	8017	8597
20°	7138	7568	8296
25°	6555	7034	7950
30°	5925	6476	7613
35°	5226	5884	7328
40°	4493	5305	7037
45°	3695	4779	6598
50°	3243	4258	6080
55°	3001	3634	5386
60°	2757	3337	4457
65°	2576	3067	3506
70°	2424	2788	2788
75°	2282	2563	2405
80°	2150	2326	2029
85°	2021	2263	1549

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6598 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.6	5.1
10°-20°	186.7	13.7
20°-30°	253.1	18.6
30°-40°	264.6	19.5
40°-50°	229.5	16.9
50°-60°	170.7	12.6
60°-70°	109.5	8.1
70°-80°	58.8	4.3
80°-90°	17.7	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°	509.4	37.4
0°-40°	774.0	56.9
0°-60°	1174.3	86.3
0°-90°	1360.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1360.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	753	753	753	753	753	
5°	728	741	738	743	750	68
15°	632	647	660	686	707	177
25°	506	522	543	579	614	232
35°	365	382	410	463	511	228
45°	222	239	288	350	397	175
55°	147	150	178	228	263	131
65°	93	101	110	117	126	92
75°	50	58	56	54	53	53
85°	15	18	17	14	12	17
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	753.1	753.1	753.1	753.1	753.1
2.5°	745.1	755.7	748.7	748.7	749.5
5°	728.3	740.7	738.1	743.4	749.5
7.5°	708.0	721.3	722.2	734.5	743.4
10°	686.0	699.2	703.6	721.3	733.6
12.5°	659.5	674.5	682.4	704.5	722.2
15°	632.1	647.1	659.5	686.0	707.2
17.5°	603.0	618.0	633.9	663.9	686.9
20°	571.2	587.1	605.6	635.6	663.9
22.5°	538.5	555.3	574.7	607.4	639.2
25°	505.9	521.8	542.9	579.1	613.6
27.5°	471.4	488.2	510.3	550.0	588.9
30°	437.0	453.8	477.6	520.0	561.5
32.5°	401.7	418.5	444.1	491.7	536.8
35°	364.6	382.3	410.5	462.6	511.2
37.5°	329.3	346.1	377.9	435.2	486.4
40°	293.1	310.8	346.1	407.9	459.1
42.5°	257.8	275.4	316.9	378.7	429.1
45°	222.5	239.3	287.8	349.6	397.3
47.5°	195.1	207.5	260.4	318.7	366.4
50°	177.5	181.9	233.1	288.7	332.8
52.5°	161.6	165.1	203.1	258.7	298.4
55°	146.6	150.1	177.5	227.8	263.1
57.5°	131.5	136.0	158.0	196.0	227.8
60°	117.4	122.7	142.1	167.7	189.8
62.5°	105.1	111.2	126.2	142.1	157.1
65°	92.7	100.6	110.4	117.4	126.2
67.5°	81.2	90.1	95.3	97.1	98.0
70°	70.6	79.5	81.2	81.2	81.2
72.5°	60.0	69.7	68.0	67.1	66.2
75°	50.3	58.3	56.5	53.9	53.0
77.5°	40.6	47.7	45.0	43.3	40.6
80°	31.8	37.1	34.4	32.7	30.0
82.5°	23.8	27.4	24.7	23.0	20.3
85°	15.0	18.5	16.8	14.1	11.5
87.5°	7.9	10.6	8.8	7.9	4.4
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	14.36	15.84	14.72	16.16	16.47	17.12	18.60	17.48	18.91	19.23
	3H	16.07	17.40	16.45	17.73	18.09	18.14	19.46	18.51	19.79	20.15
	4H	16.73	17.98	17.13	18.32	18.70	18.50	19.75	18.90	20.10	20.48
	6H	17.23	18.38	17.64	18.75	19.14	18.76	19.91	19.17	20.27	20.66
	8H	17.41	18.50	17.84	18.89	19.29	18.83	19.92	19.25	20.31	20.71
	12H	17.54	18.58	17.97	18.96	19.39	18.86	19.91	19.29	20.29	20.72
4H	2H	15.14	16.38	15.54	16.73	17.11	17.39	18.63	17.79	18.98	19.36
	3H	17.06	18.09	17.47	18.49	18.90	18.64	19.67	19.05	20.07	20.48
	4H	17.87	18.80	18.30	19.22	19.66	19.13	20.06	19.56	20.47	20.91
	6H	18.51	19.32	18.97	19.76	20.22	19.51	20.32	19.97	20.76	21.22
	8H	18.74	19.49	19.20	19.94	20.41	19.62	20.38	20.08	20.82	21.29
	12H	18.91	19.59	19.40	20.07	20.54	19.69	20.37	20.17	20.84	21.32
8H	4H	18.19	18.95	18.65	19.39	19.86	19.32	20.07	19.78	20.52	20.99
	6H	18.98	19.61	19.48	20.10	20.58	19.81	20.43	20.30	20.92	21.40
	8H	19.31	19.87	19.83	20.38	20.87	19.98	20.54	20.50	21.05	21.54
	12H	19.59	20.08	20.10	20.58	21.14	20.12	20.61	20.63	21.10	21.67
12H	4H	18.21	18.89	18.70	19.37	19.84	19.33	20.01	19.82	20.49	20.96
	6H	19.04	19.60	19.55	20.11	20.60	19.84	20.41	20.36	20.92	21.40
	8H	19.43	19.93	19.94	20.42	20.99	20.07	20.57	20.58	21.06	21.63