

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: P1059414

Luminaire Tested: S123RDR-H1000D830-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059414
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-H1000D830-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

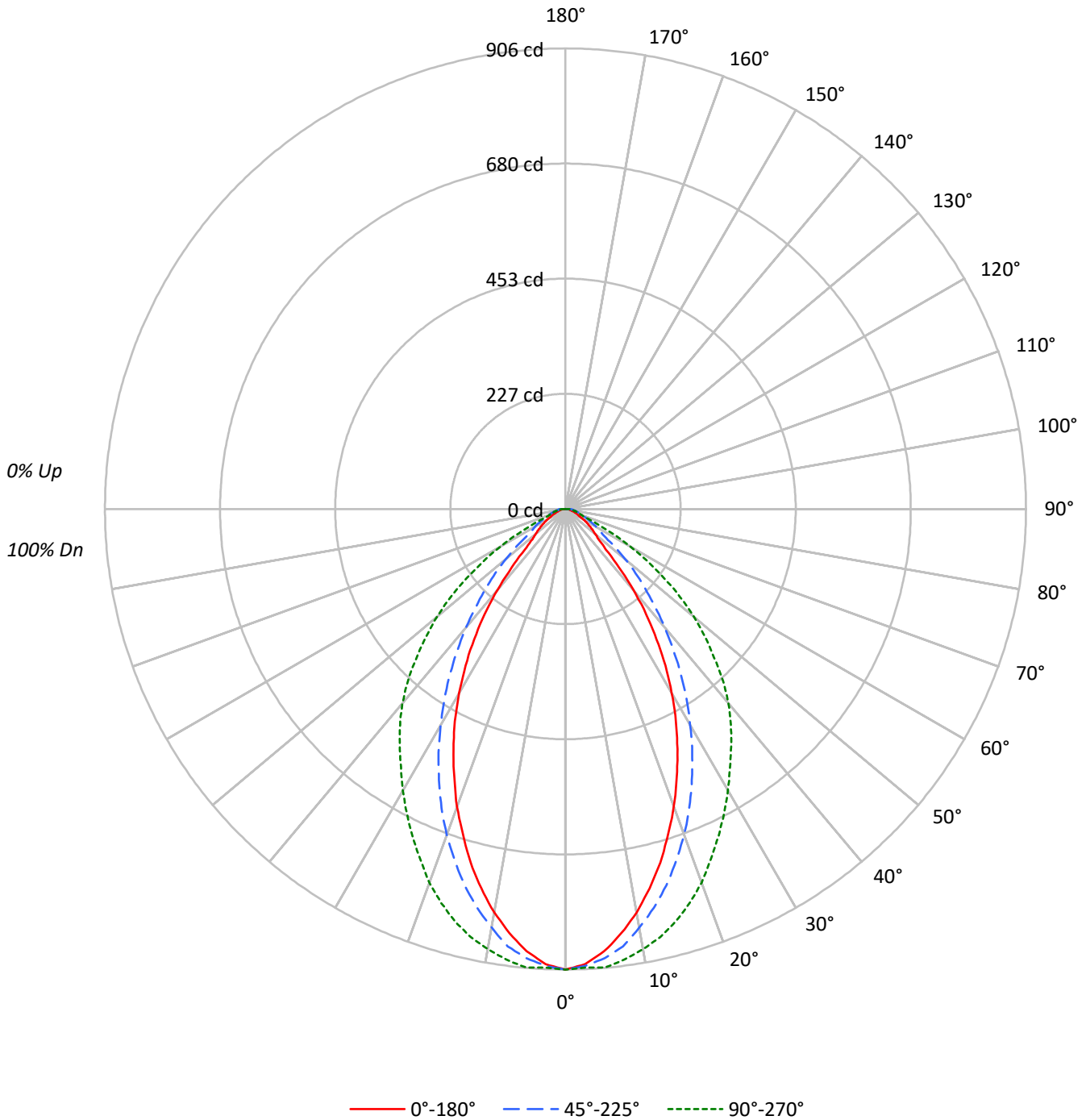
Lumens per Lamp: N/A
Luminaire Lumens: 1216.4 lumens
Efficiency: N/A
Efficacy: 39.0 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 1.08 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
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	102	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	90	81	74	68	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	60	69	64	60	68	63	59	58			58	
6	79	68	61	55	78	67	60	55	66	59	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	55	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	49	43	39	49	43	39	48	43	39	37			37	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10641	10641	10641
5°	10296	10455	10667
10°	9610	9973	10483
15°	8758	9319	10209
20°	7793	8525	9776
25°	6753	7627	9217
30°	5662	6655	8670
35°	4485	5664	8149
40°	3175	4658	7644
45°	1870	3683	6878
50°	1398	2797	6025
55°	1175	1890	4840
60°	951	1613	3436
65°	750	1375	1814
70°	656	1198	1119
75°	612	1125	1071
80°	609	1217	1068
85°	754	1819	1361

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6878 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.4	6.9
10°-20°	216.7	17.8
20°-30°	276.0	22.7
30°-40°	259.6	21.3
40°-50°	187.0	15.4
50°-60°	108.0	8.9
60°-70°	49.4	4.1
70°-80°	24.7	2.0
80°-90°	11.7	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°	576.1	47.4
0°-40°	835.8	68.7
0°-60°	1130.8	93.0
0°-90°	1216.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1216.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	906	906	906	906	906	
5°	874	888	887	896	905	81
15°	720	746	767	809	840	201
25°	521	548	589	654	711	238
35°	313	340	395	486	568	194
45°	113	141	222	333	414	95
55°	57	60	92	176	236	51
65°	27	38	50	55	65	28
75°	14	26	25	24	24	14
85°	6	12	14	12	10	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	906.2	906.2	906.2	906.2	906.2
2.5°	896.0	907.3	899.4	900.5	902.8
5°	873.5	888.2	887.0	896.0	905.0
7.5°	842.0	858.9	867.9	881.4	893.8
10°	806.0	825.1	836.4	861.1	879.2
12.5°	764.3	789.1	803.7	836.4	862.3
15°	720.4	746.3	766.6	809.4	839.8
17.5°	670.9	699.0	724.9	775.6	812.7
20°	623.6	650.6	682.2	737.3	782.3
22.5°	571.8	601.1	637.1	695.7	746.3
25°	521.2	548.2	588.7	654.0	711.4
27.5°	470.5	497.5	540.3	612.4	675.4
30°	417.6	445.8	490.8	570.7	639.4
32.5°	365.8	392.9	443.5	530.2	602.2
35°	312.9	340.0	395.1	486.3	568.5
37.5°	261.2	289.3	347.8	450.3	534.7
40°	207.1	237.5	303.9	413.1	498.7
42.5°	156.5	189.1	260.0	374.9	459.3
45°	112.6	140.7	221.8	333.2	414.2
47.5°	87.8	102.4	186.9	290.4	372.6
50°	76.5	78.8	153.1	251.0	329.8
52.5°	66.4	68.7	120.4	213.9	284.8
55°	57.4	59.7	92.3	175.6	236.4
57.5°	48.4	51.8	76.5	139.6	190.2
60°	40.5	45.0	68.7	106.9	146.3
62.5°	32.6	40.5	58.5	78.8	104.7
65°	27.0	38.3	49.5	55.2	65.3
67.5°	22.5	34.9	41.7	39.4	38.3
70°	19.1	31.5	34.9	31.5	32.6
72.5°	15.8	29.3	29.3	27.0	27.0
75°	13.5	25.9	24.8	23.6	23.6
77.5°	11.3	22.5	21.4	20.3	19.1
80°	9.0	18.0	18.0	16.9	15.8
82.5°	7.9	14.6	14.6	14.6	12.4
85°	5.6	12.4	13.5	12.4	10.1
87.5°	4.5	11.3	11.3	10.1	6.8
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	8.19	9.51	8.55	9.82	10.13	15.55	16.87	15.91	17.18	17.50
	3H	9.57	10.74	9.95	11.07	11.44	15.78	16.95	16.16	17.28	17.64
	4H	10.13	11.22	10.53	11.57	11.95	15.89	16.98	16.30	17.34	17.72
	6H	10.56	11.57	10.98	11.94	12.33	16.01	17.01	16.42	17.38	17.77
	8H	10.74	11.69	11.17	12.08	12.49	16.06	17.01	16.49	17.40	17.81
	12H	10.90	11.80	11.33	12.19	12.62	16.12	17.03	16.55	17.41	17.84
4H	2H	9.29	10.38	9.69	10.73	11.11	15.51	16.60	15.91	16.95	17.33
	3H	10.95	11.84	11.36	12.25	12.65	15.87	16.76	16.28	17.16	17.57
	4H	11.76	12.56	12.19	12.98	13.42	16.06	16.86	16.50	17.28	17.73
	6H	12.39	13.09	12.86	13.53	14.00	16.29	16.98	16.75	17.43	17.90
	8H	12.63	13.28	13.10	13.72	14.19	16.40	17.04	16.86	17.49	17.96
	12H	12.84	13.41	13.33	13.90	14.37	16.52	17.10	17.01	17.58	18.05
8H	4H	12.20	12.85	12.67	13.29	13.77	16.10	16.75	16.57	17.19	17.67
	6H	13.11	13.64	13.61	14.14	14.62	16.43	16.96	16.93	17.46	17.94
	8H	13.53	14.01	14.05	14.52	15.01	16.62	17.10	17.14	17.61	18.10
	12H	13.95	14.37	14.46	14.86	15.44	16.87	17.29	17.38	17.79	18.36
12H	4H	12.26	12.83	12.75	13.31	13.79	16.09	16.66	16.58	17.15	17.62
	6H	13.25	13.72	13.77	14.24	14.73	16.45	16.92	16.97	17.44	17.93
	8H	13.78	14.21	14.30	14.70	15.27	16.70	17.12	17.22	17.62	18.19