

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: P1059483

Luminaire Tested: S123RDR-H1000D950-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059483
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-66)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H1000D950-X4F0-XX-UDD-BVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

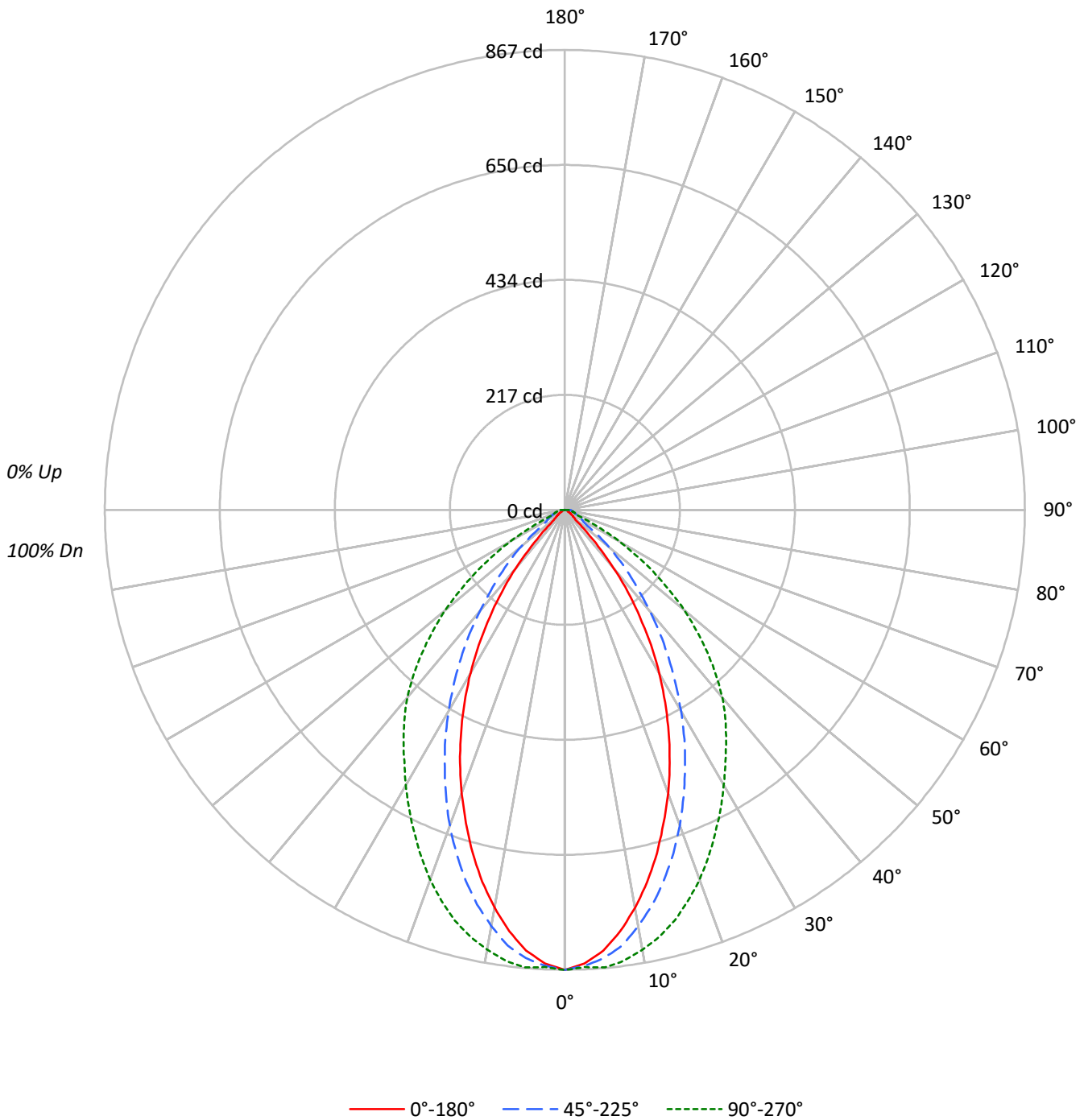
Lumens per Lamp: N/A
Luminaire Lumens: 1041.2 lumens
Efficiency: N/A
Efficacy: 33.4 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90			90	
2	105	99	94	90	102	97	92	88	94	90	86	91	87	85	88	85	83	81			81	
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73			73	
4	92	83	76	71	90	81	75	70	79	74	70	77	72	69	75	71	68	66			66	
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60			60	
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55			55	
7	76	65	58	53	75	65	58	53	63	57	53	62	56	52	61	56	52	50			50	
8	72	61	54	49	70	60	53	49	59	53	49	58	52	48	57	52	48	47			47	
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43			43	
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	42	40			40	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10184	10184	10184
5°	9833	9994	10209
10°	9077	9498	10042
15°	8146	8783	9740
20°	7106	7917	9271
25°	5995	6939	8696
30°	4822	5933	8127
35°	3529	4885	7596
40°	2201	3808	7076
45°	832	2838	6302
50°	396	1957	5371
55°	303	1073	4154
60°	214	909	2729
65°	158	792	1139
70°	158	745	745
75°	209	776	776
80°	311	926	845
85°	620	1536	1226

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6302 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.6	7.6
10°-20°	204.1	19.6
20°-30°	252.7	24.3
30°-40°	226.5	21.8
40°-50°	148.5	14.3
50°-60°	74.3	7.1
60°-70°	29.0	2.8
70°-80°	16.3	1.6
80°-90°	10.1	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°	536.4	51.5
0°-40°	763.0	73.3
0°-60°	985.8	94.7
0°-90°	1041.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1041.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	867	867	867	867	867	
5°	834	848	848	857	866	77
15°	670	698	722	770	801	187
25°	463	491	536	612	671	211
35°	246	279	341	443	530	153
45°	50	81	171	293	380	48
55°	15	18	52	144	203	14
65°	6	17	28	38	41	6
75°	5	17	17	17	17	5
85°	5	11	11	11	9	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	867.3	867.3	867.3	867.3	867.3
2.5°	855.9	868.4	860.4	861.6	862.7
5°	834.2	847.9	847.9	857.0	866.1
7.5°	801.2	817.1	828.5	844.5	857.0
10°	761.3	780.6	796.6	825.1	842.2
12.5°	718.0	741.9	762.4	800.0	824.0
15°	670.1	697.5	722.5	770.4	801.2
17.5°	618.8	646.2	679.2	735.1	772.7
20°	568.7	596.0	633.6	696.3	741.9
22.5°	516.3	544.7	584.6	654.1	707.7
25°	462.7	491.2	535.6	612.0	671.2
27.5°	409.1	437.6	487.8	571.0	635.9
30°	355.6	384.1	437.6	526.5	599.4
32.5°	302.0	332.8	388.6	485.5	563.0
35°	246.2	279.2	340.8	443.3	529.9
37.5°	194.9	225.6	295.2	406.8	496.9
40°	143.6	176.6	248.4	371.5	461.6
42.5°	93.4	128.8	206.3	332.8	421.7
45°	50.1	80.9	170.9	292.9	379.5
47.5°	27.4	44.4	137.9	250.7	336.2
50°	21.7	25.1	107.1	214.3	294.0
52.5°	18.2	20.5	76.4	180.1	247.3
55°	14.8	18.2	52.4	143.6	202.9
57.5°	12.5	16.0	41.0	111.7	158.4
60°	9.1	13.7	38.7	82.1	116.2
62.5°	6.8	14.8	34.2	57.0	76.4
65°	5.7	17.1	28.5	37.6	41.0
67.5°	4.6	18.2	25.1	23.9	23.9
70°	4.6	17.1	21.7	20.5	21.7
72.5°	4.6	18.2	19.4	18.2	19.4
75°	4.6	17.1	17.1	17.1	17.1
77.5°	4.6	16.0	16.0	14.8	14.8
80°	4.6	13.7	13.7	13.7	12.5
82.5°	4.6	12.5	12.5	12.5	10.3
85°	4.6	11.4	11.4	11.4	9.1
87.5°	3.4	10.3	11.4	10.3	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	0.43	1.69	0.80	2.00	2.32	14.67	15.92	15.03	16.24	16.55
	3H	2.76	3.87	3.14	4.20	4.57	14.75	15.86	15.13	16.19	16.56
	4H	3.87	4.90	4.27	5.25	5.64	14.83	15.86	15.23	16.21	16.60
	6H	4.87	5.81	5.28	6.19	6.58	14.93	15.88	15.35	16.25	16.64
	8H	5.35	6.25	5.78	6.64	7.04	14.99	15.89	15.42	16.28	16.68
	12H	5.91	6.77	6.34	7.15	7.58	15.07	15.93	15.50	16.31	16.74
4H	2H	3.68	4.71	4.08	5.06	5.45	14.52	15.56	14.93	15.91	16.29
	3H	5.99	6.84	6.41	7.24	7.65	14.70	15.54	15.11	15.95	16.35
	4H	7.36	8.12	7.80	8.54	8.98	14.85	15.61	15.29	16.03	16.47
	6H	8.46	9.11	8.92	9.56	10.02	15.07	15.73	15.54	16.17	16.64
	8H	8.91	9.52	9.38	9.97	10.44	15.20	15.81	15.67	16.26	16.73
	12H	9.41	9.95	9.90	10.43	10.91	15.37	15.91	15.86	16.40	16.87
8H	4H	8.34	8.95	8.81	9.40	9.87	14.85	15.46	15.32	15.90	16.38
	6H	9.86	10.36	10.37	10.86	11.34	15.18	15.68	15.69	16.18	16.66
	8H	10.63	11.08	11.16	11.60	12.09	15.42	15.87	15.94	16.38	16.88
	12H	11.44	11.84	11.96	12.33	12.91	15.75	16.15	16.27	16.64	17.22
12H	4H	8.52	9.05	9.00	9.54	10.01	14.83	15.37	15.32	15.85	16.33
	6H	10.18	10.63	10.70	11.14	11.64	15.20	15.65	15.73	16.17	16.66
	8H	11.13	11.53	11.65	12.02	12.60	15.51	15.91	16.03	16.41	16.98