

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: P1059423

Luminaire Tested: S123RDR-H1000D835-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059423
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-H1000D835-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: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

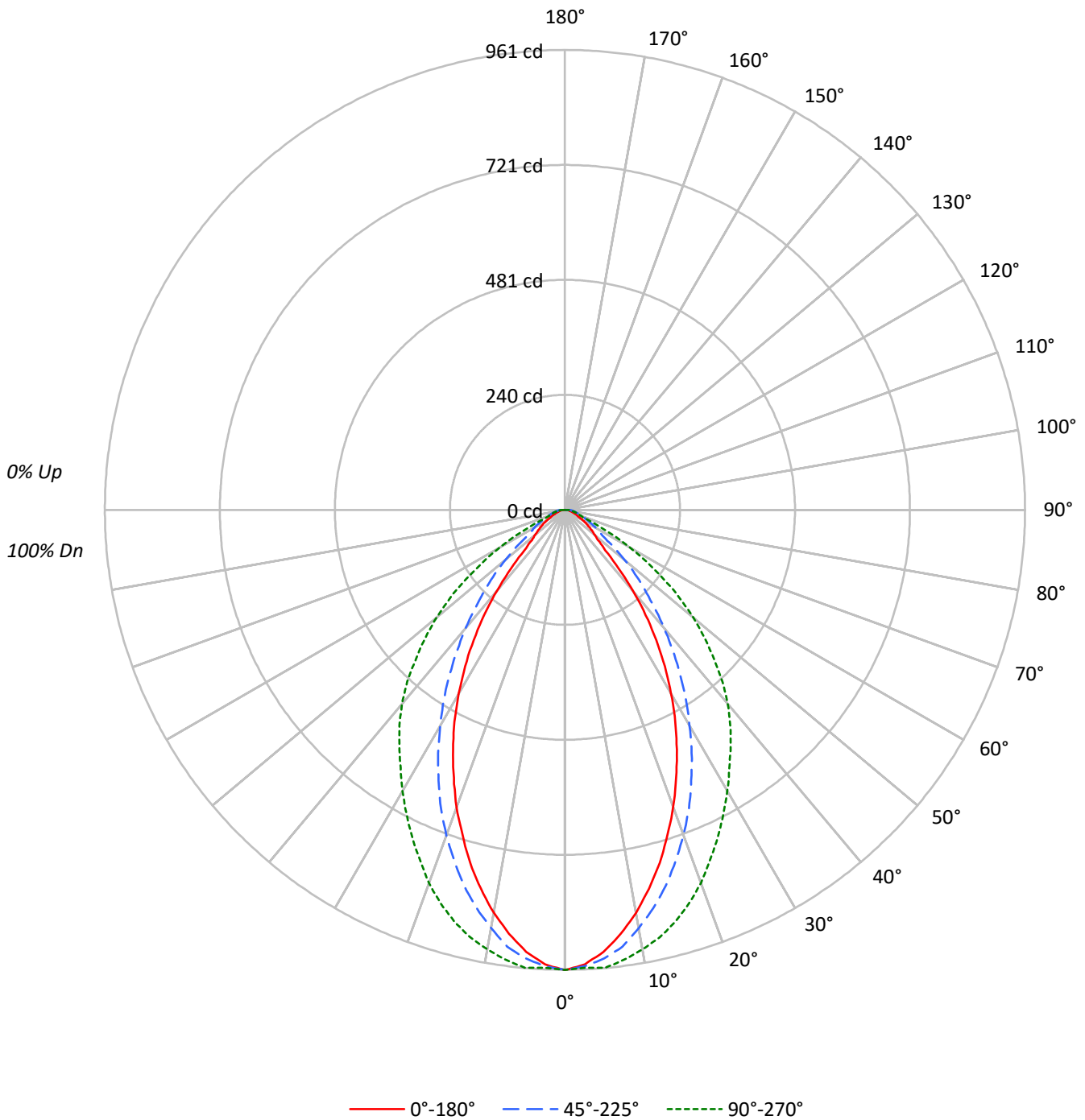
Lumens per Lamp: N/A
Luminaire Lumens: 1290.6 lumens
Efficiency: N/A
Efficacy: 41.4 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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°	11289	11289	11289
5°	10924	11093	11318
10°	10196	10581	11121
15°	9293	9887	10830
20°	8267	9043	10372
25°	7165	8093	9779
30°	6008	7060	9198
35°	4759	6009	8645
40°	3369	4943	8110
45°	1983	3907	7298
50°	1483	2967	6392
55°	1247	2004	5134
60°	1010	1712	3647
65°	797	1459	1925
70°	697	1270	1188
75°	649	1193	1139
80°	649	1292	1129
85°	808	1927	1442

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7298 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.5	6.9
10°-20°	230.0	17.8
20°-30°	292.9	22.7
30°-40°	275.5	21.3
40°-50°	198.4	15.4
50°-60°	114.6	8.9
60°-70°	52.4	4.1
70°-80°	26.2	2.0
80°-90°	12.3	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°	611.3	47.4
0°-40°	886.7	68.7
0°-60°	1199.7	93.0
0°-90°	1290.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1290.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	961	961	961	961	961	
5°	927	942	941	951	960	86
15°	764	792	813	859	891	213
25°	553	582	625	694	755	253
35°	332	361	419	516	603	206
45°	119	149	235	354	440	101
55°	61	63	98	186	251	55
65°	29	41	52	58	69	29
75°	14	28	26	25	25	15
85°	6	13	14	13	11	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	961.4	961.4	961.4	961.4	961.4
2.5°	950.7	962.6	954.2	955.4	957.8
5°	926.8	942.3	941.1	950.7	960.2
7.5°	893.3	911.3	920.8	935.1	948.3
10°	855.1	875.4	887.4	913.6	932.7
12.5°	810.9	837.2	852.7	887.4	914.8
15°	764.4	791.8	813.3	858.7	890.9
17.5°	711.8	741.7	769.1	822.9	862.3
20°	661.6	690.3	723.7	782.3	830.0
22.5°	606.7	637.8	676.0	738.1	791.8
25°	553.0	581.6	624.6	693.9	754.8
27.5°	499.2	527.9	573.3	649.7	716.6
30°	443.1	472.9	520.7	605.5	678.4
32.5°	388.1	416.8	470.6	562.5	639.0
35°	332.0	360.7	419.2	515.9	603.1
37.5°	277.1	306.9	369.0	477.7	567.3
40°	219.8	252.0	322.5	438.3	529.1
42.5°	166.0	200.6	275.9	397.7	487.3
45°	119.4	149.3	235.3	353.5	439.5
47.5°	93.2	108.7	198.3	308.1	395.3
50°	81.2	83.6	162.4	266.3	349.9
52.5°	70.5	72.9	127.8	226.9	302.2
55°	60.9	63.3	97.9	186.3	250.8
57.5°	51.4	54.9	81.2	148.1	201.8
60°	43.0	47.8	72.9	113.5	155.3
62.5°	34.6	43.0	62.1	83.6	111.1
65°	28.7	40.6	52.5	58.5	69.3
67.5°	23.9	37.0	44.2	41.8	40.6
70°	20.3	33.4	37.0	33.4	34.6
72.5°	16.7	31.1	31.1	28.7	28.7
75°	14.3	27.5	26.3	25.1	25.1
77.5°	11.9	23.9	22.7	21.5	20.3
80°	9.6	19.1	19.1	17.9	16.7
82.5°	8.4	15.5	15.5	15.5	13.1
85°	6.0	13.1	14.3	13.1	10.7
87.5°	4.8	11.9	11.9	10.7	7.2
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	8.39	9.71	8.75	10.02	10.34	15.75	17.07	16.12	17.39	17.70
	3H	9.78	10.95	10.16	11.28	11.64	15.98	17.15	16.36	17.48	17.85
	4H	10.33	11.42	10.73	11.77	12.16	16.10	17.19	16.50	17.54	17.92
	6H	10.77	11.77	11.18	12.14	12.53	16.21	17.22	16.63	17.59	17.98
	8H	10.94	11.89	11.37	12.28	12.69	16.27	17.22	16.70	17.61	18.01
	12H	11.10	12.01	11.53	12.39	12.82	16.32	17.23	16.76	17.62	18.05
4H	2H	9.49	10.58	9.89	10.93	11.31	15.71	16.80	16.12	17.15	17.54
	3H	11.15	12.04	11.56	12.45	12.85	16.07	16.97	16.49	17.37	17.77
	4H	11.96	12.76	12.40	13.18	13.63	16.27	17.07	16.70	17.49	17.93
	6H	12.60	13.29	13.06	13.74	14.20	16.50	17.19	16.96	17.63	18.10
	8H	12.84	13.48	13.30	13.93	14.40	16.60	17.25	17.07	17.69	18.16
	12H	13.05	13.62	13.54	14.10	14.58	16.73	17.30	17.21	17.78	18.26
8H	4H	12.41	13.05	12.88	13.50	13.97	16.31	16.95	16.78	17.40	17.87
	6H	13.32	13.85	13.82	14.34	14.82	16.64	17.17	17.14	17.66	18.14
	8H	13.74	14.21	14.26	14.73	15.22	16.82	17.30	17.35	17.82	18.31
	12H	14.15	14.58	14.67	15.07	15.64	17.07	17.49	17.59	17.99	18.56
12H	4H	12.46	13.04	12.95	13.52	13.99	16.30	16.87	16.78	17.35	17.83
	6H	13.45	13.93	13.97	14.44	14.93	16.65	17.13	17.17	17.64	18.14
	8H	13.99	14.41	14.50	14.91	15.48	16.91	17.33	17.42	17.82	18.39