

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1059174

Luminaire Tested: S123RDRP-S340D830-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059174
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-64)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S340D830-X4F0-XX-UDD-WVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

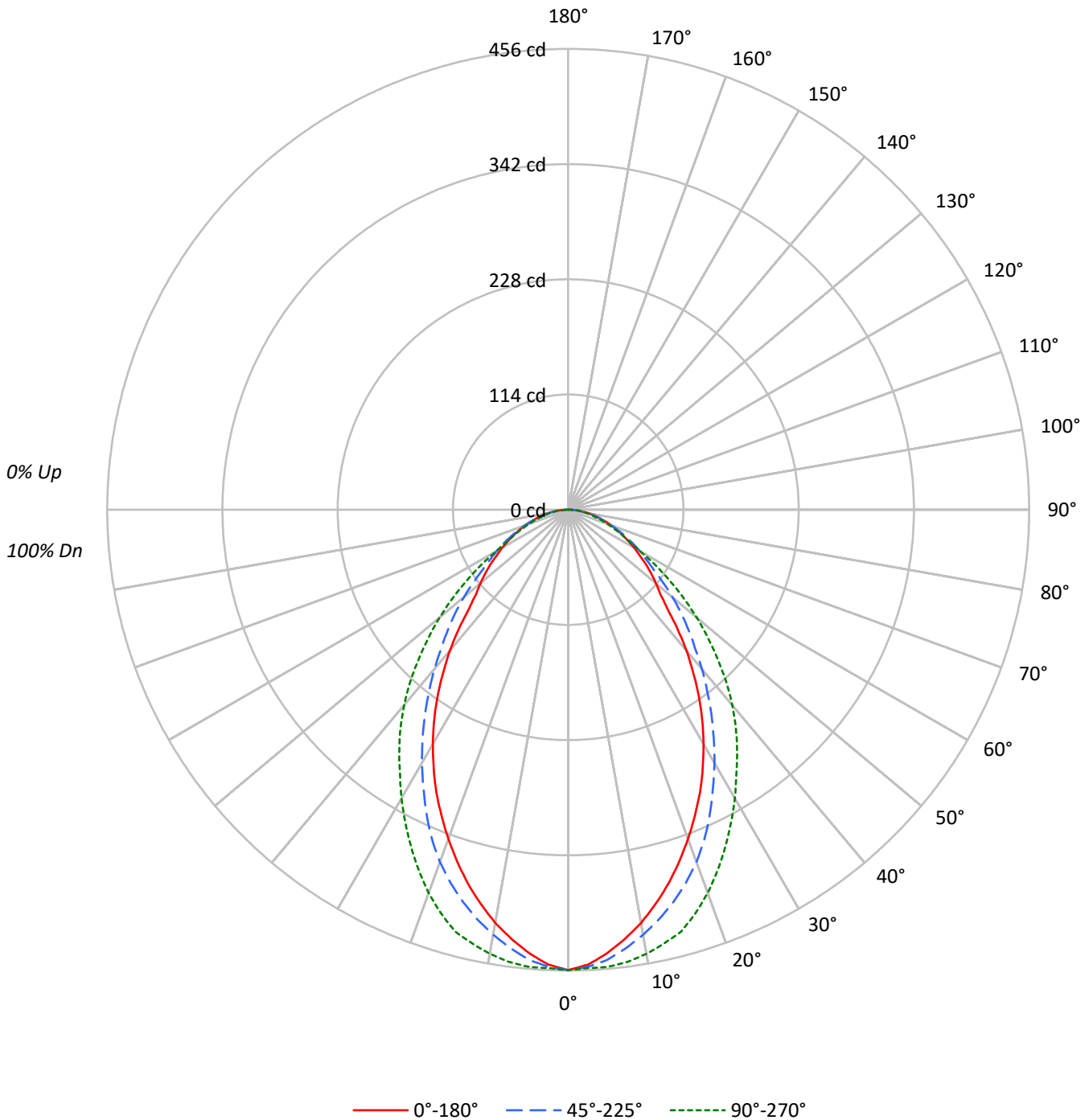
Lumens per Lamp: N/A
Luminaire Lumens: 800.5 lumens
Efficiency: N/A
Efficacy: 64.0 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 12.5
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	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	101	97	100	97	94	96	94	92	92	91	89	87
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34
10	58	46	39	34	57	45	38	34	45	38	34	44	38	33	43	37	33	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5350	5350	5350
5°	5195	5269	5351
10°	4951	5091	5320
15°	4657	4886	5253
20°	4331	4635	5042
25°	3998	4298	4765
30°	3631	3924	4470
35°	3231	3541	4176
40°	2788	3155	3870
45°	2305	2793	3471
50°	2070	2464	3031
55°	1918	2103	2512
60°	1768	1916	1923
65°	1645	1731	1612
70°	1548	1576	1415
75°	1461	1406	1243
80°	1379	1271	1170
85°	1320	1428	1320

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3471 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.2	5.3
10°-20°	113.7	14.2
20°-30°	153.8	19.2
30°-40°	158.0	19.7
40°-50°	132.7	16.6
50°-60°	95.2	11.9
60°-70°	60.6	7.6
70°-80°	33.3	4.2
80°-90°	11.1	1.4
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°	309.7	38.7
0°-40°	467.7	58.4
0°-60°	695.6	86.9
0°-90°	800.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	800.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	456	456	456	456	456	
5°	441	448	447	450	454	41
15°	383	394	402	419	432	107
25°	309	320	332	350	368	141
35°	225	238	247	269	291	140
45°	139	151	168	192	209	110
55°	94	96	103	116	123	84
65°	59	63	62	59	58	59
75°	32	35	31	29	27	34
85°	10	10	11	11	10	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	455.6	455.6	455.6	455.6	455.6
2.5°	450.5	456.8	452.5	452.9	454.0
5°	440.7	448.5	447.0	450.1	454.0
7.5°	428.5	437.2	437.6	445.0	451.3
10°	415.2	424.2	427.0	438.3	446.2
12.5°	399.5	409.3	415.2	429.3	439.5
15°	383.1	393.6	401.9	419.1	432.1
17.5°	365.0	376.4	387.0	405.4	418.7
20°	346.6	358.8	370.9	388.2	403.5
22.5°	327.4	339.9	352.5	369.3	386.2
25°	308.6	320.3	331.7	349.7	367.8
27.5°	288.2	300.3	310.1	330.1	349.0
30°	267.8	279.9	289.4	310.1	329.7
32.5°	246.6	259.2	267.8	289.4	309.7
35°	225.4	237.6	247.0	269.0	291.3
37.5°	203.1	216.4	225.8	250.5	272.5
40°	181.9	194.5	205.8	231.7	252.5
42.5°	160.0	172.9	185.8	212.5	231.7
45°	138.8	151.0	168.2	192.5	209.0
47.5°	123.5	131.3	151.3	171.7	187.4
50°	113.3	116.4	134.9	152.9	165.9
52.5°	103.1	105.5	118.0	134.5	144.3
55°	93.7	95.7	102.7	116.4	122.7
57.5°	83.5	85.5	91.4	99.2	102.7
60°	75.3	76.8	81.6	82.7	81.9
62.5°	67.0	69.4	71.8	69.0	67.8
65°	59.2	62.7	62.3	58.8	58.0
67.5°	52.1	55.7	53.7	50.2	49.0
70°	45.1	48.6	45.9	42.3	41.2
72.5°	38.4	42.3	38.0	34.9	34.1
75°	32.2	35.3	31.0	28.6	27.4
77.5°	26.3	28.6	24.7	22.7	22.0
80°	20.4	22.0	18.8	17.6	17.3
82.5°	14.9	15.7	13.7	14.5	14.1
85°	9.8	10.2	10.6	11.0	9.8
87.5°	4.7	6.7	6.7	6.3	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	13.01	14.48	13.38	14.79	15.10	14.08	15.54	14.45	15.86	16.17
	3H	14.71	16.02	15.09	16.35	16.71	15.17	16.48	15.54	16.80	17.17
	4H	15.36	16.59	15.76	16.94	17.32	15.57	16.79	15.97	17.14	17.52
	6H	15.87	17.00	16.28	17.37	17.76	15.88	17.01	16.29	17.38	17.77
	8H	16.04	17.12	16.47	17.51	17.91	16.01	17.09	16.44	17.48	17.88
	12H	16.17	17.20	16.60	17.58	18.01	16.13	17.16	16.56	17.55	17.98
4H	2H	13.61	14.84	14.01	15.19	15.57	14.48	15.71	14.88	16.06	16.44
	3H	15.54	16.56	15.95	16.96	17.36	15.80	16.82	16.21	17.22	17.62
	4H	16.35	17.27	16.79	17.69	18.12	16.32	17.24	16.75	17.65	18.09
	6H	17.00	17.80	17.46	18.24	18.70	16.75	17.55	17.21	17.99	18.45
	8H	17.22	17.97	17.69	18.41	18.88	16.94	17.69	17.41	18.13	18.60
	12H	17.40	18.06	17.88	18.54	19.01	17.13	17.79	17.61	18.27	18.74
8H	4H	16.59	17.33	17.05	17.78	18.25	16.57	17.31	17.03	17.76	18.22
	6H	17.38	17.99	17.88	18.49	18.96	17.11	17.73	17.61	18.22	18.70
	8H	17.69	18.24	18.21	18.76	19.24	17.39	17.94	17.91	18.45	18.94
	12H	17.96	18.45	18.47	18.94	19.51	17.68	18.17	18.19	18.66	19.23
12H	4H	16.60	17.27	17.08	17.74	18.22	16.59	17.26	17.08	17.74	18.21
	6H	17.41	17.97	17.93	18.48	18.97	17.17	17.72	17.68	18.23	18.72
	8H	17.79	18.28	18.30	18.77	19.34	17.51	18.00	18.02	18.49	19.05