

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: P1059006

Luminaire Tested: S123RDRP-S1000D830-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059006
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: S123RDRP-S1000D830-X4F0-XX-UDD-BVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

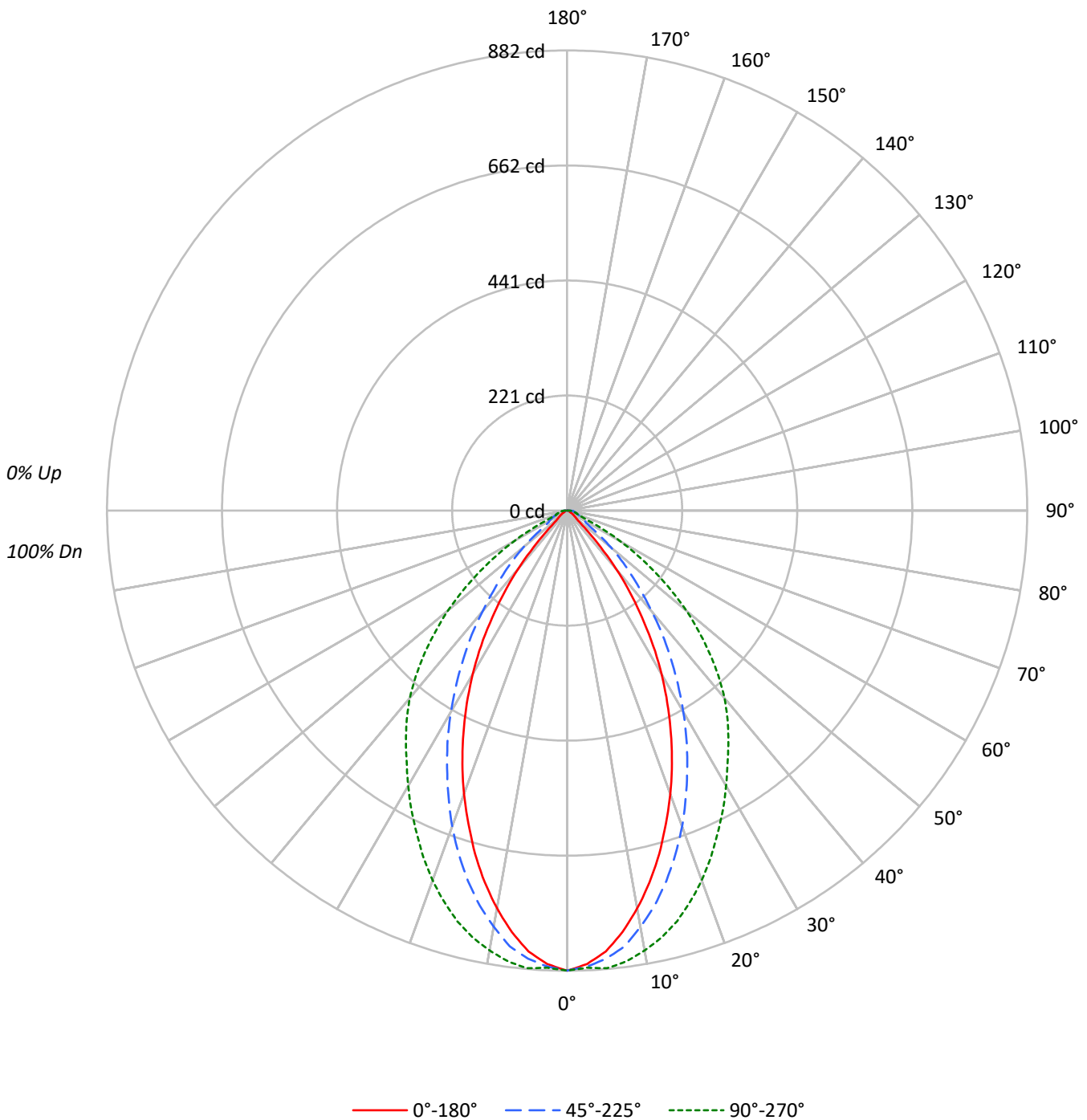
Lumens per Lamp: N/A
Luminaire Lumens: 1058.5 lumens
Efficiency: N/A
Efficacy: 30.2 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
Input Voltage (V): 120
Input Current (A_{in}): 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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	99	94	90	102	97	92	88	94	90	87	91	87	85	88	85	83	81
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73
4	92	83	76	71	90	81	75	70	79	74	70	77	72	69	75	71	68	66
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55
7	76	65	58	53	75	65	58	53	63	57	53	62	56	52	61	56	52	50
8	72	61	54	49	70	60	53	49	59	53	49	58	52	48	57	52	48	47
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	42	40

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10353	10353	10353
5°	9997	10161	10379
10°	9228	9657	10209
15°	8282	8930	9902
20°	7224	8050	9425
25°	6095	7055	8841
30°	4902	6032	8263
35°	3588	4966	7722
40°	2238	3872	7192
45°	847	2886	6407
50°	402	1989	5460
55°	309	1091	4221
60°	218	925	2776
65°	161	806	1159
70°	158	755	755
75°	209	789	789
80°	311	940	859
85°	620	1563	1253

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6407 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.9	7.6
10°-20°	207.5	19.6
20°-30°	256.9	24.3
30°-40°	230.3	21.8
40°-50°	151.0	14.3
50°-60°	75.6	7.1
60°-70°	29.5	2.8
70°-80°	16.6	1.6
80°-90°	10.2	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°	545.4	51.5
0°-40°	775.7	73.3
0°-60°	1002.3	94.7
0°-90°	1058.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1058.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	882	882	882	882	882	
5°	848	862	862	871	880	79
15°	681	709	735	783	814	190
25°	470	499	544	622	682	215
35°	250	284	346	451	539	156
45°	51	82	174	298	386	49
55°	15	18	53	146	206	14
65°	6	17	29	38	42	6
75°	5	17	17	17	17	5
85°	5	12	12	12	9	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	881.7	881.7	881.7	881.7	881.7
2.5°	870.1	882.9	874.7	875.9	877.1
5°	848.1	862.0	862.0	871.3	880.5
7.5°	814.5	830.7	842.3	858.5	871.3
10°	773.9	793.6	809.9	838.8	856.2
12.5°	729.9	754.2	775.1	813.3	837.7
15°	681.3	709.1	734.6	783.2	814.5
17.5°	629.1	656.9	690.5	747.3	785.5
20°	578.1	605.9	644.2	707.9	754.2
22.5°	524.8	553.8	594.4	665.0	719.5
25°	470.4	499.4	544.5	622.2	682.4
27.5°	415.9	444.9	495.9	580.5	646.5
30°	361.5	390.4	444.9	535.3	609.4
32.5°	307.0	338.3	395.1	493.6	572.3
35°	250.3	283.9	346.4	450.7	538.7
37.5°	198.1	229.4	300.1	413.6	505.1
40°	146.0	179.6	252.6	377.7	469.2
42.5°	95.0	130.9	209.7	338.3	428.7
45°	51.0	82.3	173.8	297.8	385.8
47.5°	27.8	45.2	140.2	254.9	341.8
50°	22.0	25.5	108.9	217.8	298.9
52.5°	18.5	20.9	77.6	183.1	251.4
55°	15.1	18.5	53.3	146.0	206.2
57.5°	12.7	16.2	41.7	113.5	161.0
60°	9.3	13.9	39.4	83.4	118.2
62.5°	7.0	15.1	34.8	57.9	77.6
65°	5.8	17.4	29.0	38.2	41.7
67.5°	4.6	18.5	25.5	24.3	24.3
70°	4.6	17.4	22.0	20.9	22.0
72.5°	4.6	18.5	19.7	18.5	19.7
75°	4.6	17.4	17.4	17.4	17.4
77.5°	4.6	16.2	16.2	15.1	15.1
80°	4.6	13.9	13.9	13.9	12.7
82.5°	4.6	12.7	12.7	12.7	10.4
85°	4.6	11.6	11.6	11.6	9.3
87.5°	3.5	10.4	11.6	10.4	7.0
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	0.47	1.72	0.83	2.04	2.35	14.72	15.98	15.09	16.29	16.61
	3H	2.80	3.91	3.18	4.24	4.60	14.80	15.91	15.18	16.24	16.61
	4H	3.90	4.93	4.30	5.28	5.67	14.88	15.91	15.28	16.27	16.65
	6H	4.89	5.84	5.30	6.21	6.60	14.99	15.93	15.40	16.31	16.70
	8H	5.37	6.26	5.80	6.65	7.06	15.04	15.94	15.47	16.33	16.74
	12H	5.92	6.78	6.35	7.16	7.59	15.12	15.98	15.56	16.37	16.80
4H	2H	3.73	4.76	4.13	5.11	5.50	14.58	15.61	14.98	15.96	16.35
	3H	6.04	6.89	6.46	7.29	7.70	14.75	15.60	15.17	16.00	16.41
	4H	7.41	8.17	7.85	8.59	9.03	14.91	15.66	15.34	16.08	16.53
	6H	8.50	9.15	8.96	9.60	10.06	15.13	15.78	15.60	16.23	16.70
	8H	8.95	9.56	9.42	10.01	10.48	15.25	15.86	15.72	16.31	16.78
	12H	9.44	9.98	9.93	10.46	10.94	15.43	15.97	15.92	16.45	16.93
8H	4H	8.39	9.00	8.86	9.45	9.92	14.90	15.51	15.37	15.96	16.43
	6H	9.91	10.41	10.41	10.90	11.39	15.24	15.74	15.74	16.24	16.72
	8H	10.68	11.13	11.20	11.64	12.13	15.47	15.92	15.99	16.44	16.93
	12H	11.48	11.88	12.00	12.37	12.95	15.81	16.20	16.32	16.70	17.27
12H	4H	8.57	9.10	9.05	9.59	10.06	14.89	15.42	15.37	15.91	16.38
	6H	10.22	10.67	10.74	11.19	11.68	15.26	15.71	15.78	16.23	16.72
	8H	11.17	11.57	11.69	12.07	12.64	15.57	15.97	16.08	16.46	17.03