

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: P1059091

Luminaire Tested: S123RDRP-S1165D830-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059091
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-28)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S1165D830-X4F0-XX-UDD-WVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

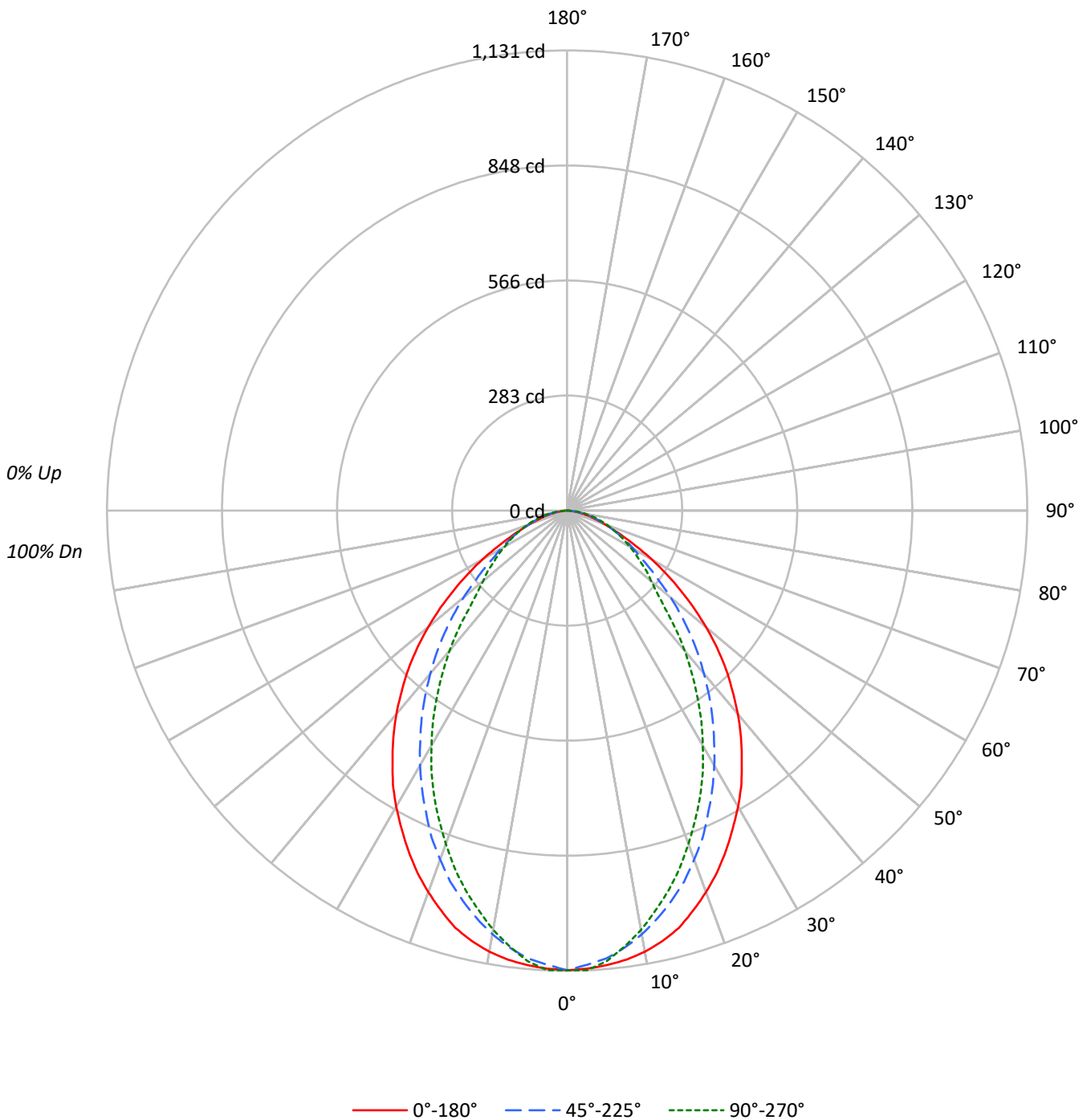
Lumens per Lamp: N/A
Luminaire Lumens: 1975.5 lumens
Efficiency: N/A
Efficacy: 47.3 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
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	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	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89					88				
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78					76				
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68					66				
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60					58				
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54					52				
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48					47				
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44					42				
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40					38				
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37					35				
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34					32				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13263	13263	13263
5°	13218	13026	13106
10°	13128	12610	12480
15°	12907	12064	11735
20°	12469	11400	10892
25°	11961	10624	10026
30°	11395	9811	9038
35°	10722	8932	7999
40°	10010	8012	6889
45°	9177	7079	5659
50°	8135	6076	4910
55°	6920	5085	4502
60°	5643	4432	4176
65°	4301	3923	3884
70°	3354	3495	3636
75°	2709	3140	3389
80°	2022	2570	3124
85°	1091	1644	2748

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9177 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.8	5.3
10°-20°	282.1	14.3
20°-30°	383.5	19.4
30°-40°	397.5	20.1
40°-50°	335.3	17.0
50°-60°	238.0	12.0
60°-70°	145.5	7.4
70°-80°	72.4	3.7
80°-90°	16.4	0.8
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°	770.5	39.0
0°-40°	1168.0	59.1
0°-60°	1741.3	88.1
0°-90°	1975.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1975.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1130	1130	1130	1130	1130	
5°	1121	1121	1105	1112	1112	106
15°	1062	1041	992	975	965	298
25°	923	882	820	790	774	424
35°	748	691	623	580	558	468
45°	553	494	426	368	341	424
55°	338	303	248	227	220	303
65°	155	149	141	141	140	158
75°	60	64	69	72	75	64
85°	8	10	12	18	20	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1129.5	1129.5	1129.5	1129.5	1129.5
2.5°	1126.8	1128.2	1117.3	1129.5	1130.9
5°	1121.4	1121.4	1105.1	1111.9	1111.9
7.5°	1113.2	1110.5	1083.4	1083.4	1080.7
10°	1101.0	1092.9	1057.6	1050.8	1046.7
12.5°	1083.4	1069.8	1026.4	1014.1	1006.0
15°	1061.7	1041.3	992.4	974.8	965.3
17.5°	1030.4	1010.1	955.8	931.3	920.5
20°	997.8	968.0	912.3	887.9	871.6
22.5°	962.6	924.5	870.2	840.4	822.7
25°	923.2	882.5	820.0	790.1	773.8
27.5°	881.1	836.3	772.5	738.5	722.3
30°	840.4	788.8	723.6	685.6	666.6
32.5°	796.9	738.5	672.0	632.6	613.6
35°	748.0	691.0	623.1	579.7	558.0
37.5°	701.9	643.5	572.9	526.8	502.3
40°	653.0	594.6	522.7	475.2	449.4
42.5°	601.4	545.8	475.2	419.5	395.1
45°	552.6	494.2	426.3	367.9	340.8
47.5°	499.6	445.3	378.8	319.0	300.0
50°	445.3	395.1	332.6	278.3	268.8
52.5°	392.4	350.3	286.5	251.2	247.1
55°	338.0	302.7	248.4	226.7	219.9
57.5°	287.8	262.0	213.1	202.3	199.6
60°	240.3	218.6	188.7	181.9	177.8
62.5°	194.1	181.9	164.3	161.6	158.8
65°	154.8	149.3	141.2	141.2	139.8
67.5°	122.2	122.2	120.8	123.5	122.2
70°	97.7	99.1	101.8	104.5	105.9
72.5°	77.4	81.5	84.2	88.2	89.6
75°	59.7	63.8	69.2	72.0	74.7
77.5°	43.4	47.5	52.9	57.0	59.7
80°	29.9	32.6	38.0	43.4	46.2
82.5°	19.0	20.4	24.4	29.9	32.6
85°	8.1	9.5	12.2	17.6	20.4
87.5°	0.0	0.0	1.4	5.4	9.5
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	17.79	19.24	18.16	19.55	19.87	15.89	17.34	16.25	17.65	17.97
	3H	18.69	19.98	19.07	20.31	20.67	17.46	18.76	17.84	19.08	19.45
	4H	18.97	20.18	19.37	20.53	20.91	18.06	19.27	18.46	19.62	20.00
	6H	19.12	20.24	19.53	20.60	21.00	18.51	19.62	18.92	19.99	20.38
	8H	19.14	20.20	19.57	20.59	21.00	18.66	19.72	19.08	20.11	20.51
	12H	19.14	20.15	19.57	20.53	20.96	18.75	19.77	19.19	20.15	20.58
4H	2H	18.03	19.25	18.43	19.60	19.98	16.43	17.64	16.83	17.99	18.37
	3H	19.15	20.15	19.56	20.55	20.95	18.20	19.20	18.61	19.60	20.01
	4H	19.54	20.44	19.97	20.85	21.29	18.91	19.81	19.35	20.23	20.67
	6H	19.78	20.56	20.24	21.00	21.46	19.49	20.26	19.94	20.71	21.17
	8H	19.82	20.55	20.29	20.99	21.46	19.68	20.40	20.14	20.85	21.32
	12H	19.83	20.48	20.31	20.96	21.43	19.82	20.46	20.30	20.94	21.42
8H	4H	19.70	20.42	20.16	20.87	21.34	19.12	19.85	19.59	20.30	20.76
	6H	20.01	20.61	20.51	21.10	21.58	19.80	20.40	20.30	20.89	21.37
	8H	20.08	20.62	20.60	21.13	21.62	20.06	20.59	20.57	21.11	21.59
	12H	20.12	20.59	20.63	21.09	21.65	20.26	20.74	20.78	21.23	21.80
12H	4H	19.70	20.35	20.18	20.83	21.30	19.12	19.77	19.60	20.25	20.72
	6H	20.02	20.56	20.54	21.07	21.56	19.81	20.35	20.32	20.86	21.35
	8H	20.14	20.61	20.65	21.10	21.67	20.11	20.59	20.62	21.08	21.65