

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: P1059091

Luminaire Tested: S123RDR-S1165D830-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
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: S123RDR-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

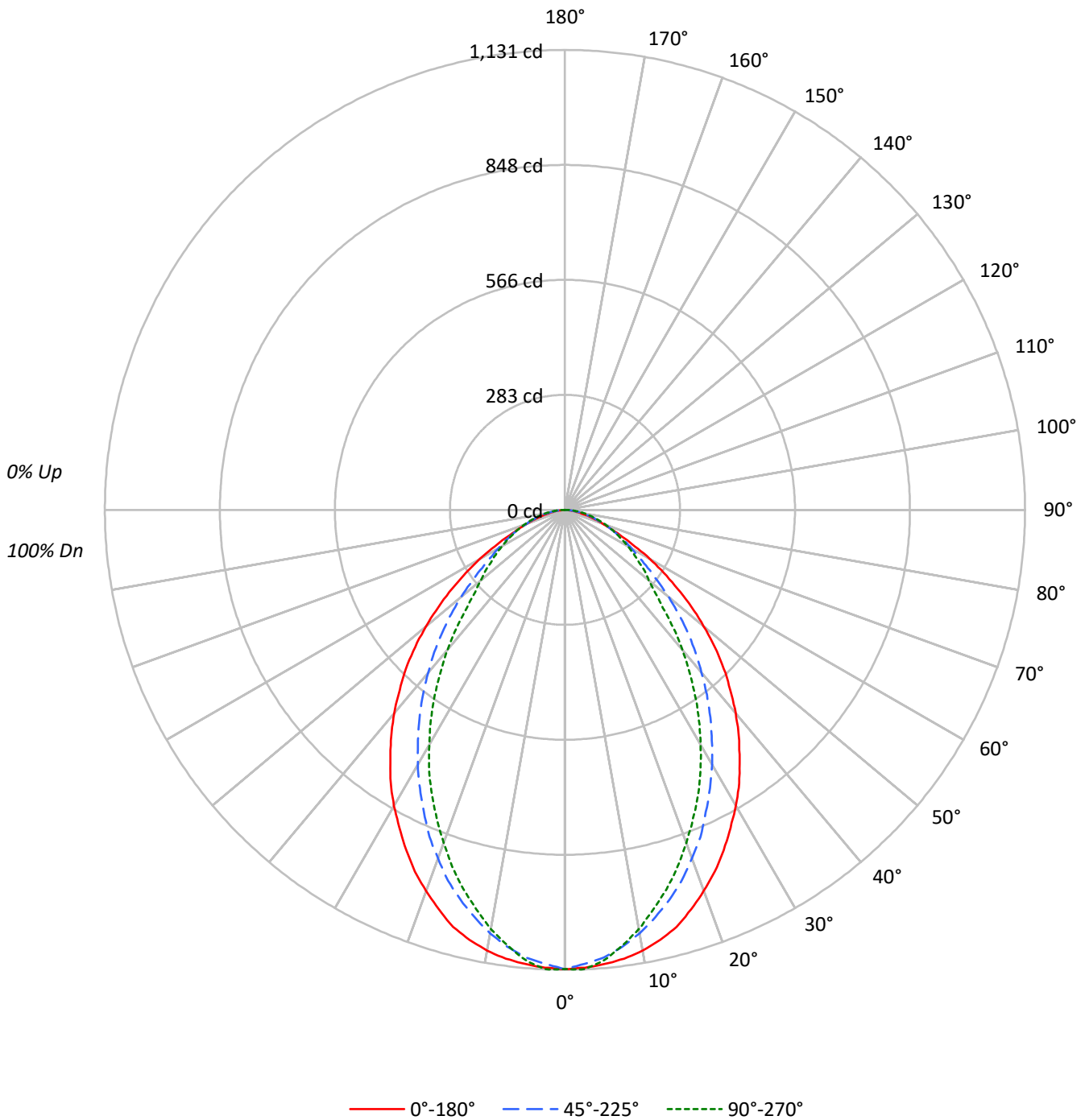
Lumens per Lamp: N/A
Luminaire Lumens: 1975.5 lumens
Efficiency: N/A
Efficacy: 47.3 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
Input Voltage (V): 120
Input Current (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	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	88			88	
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76			76	
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66			66	
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58			58	
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52			52	
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47			47	
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42			42	
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38			38	
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35			35	
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32			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

(END OF REPORT)