

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: P1059087

Luminaire Tested: S123RDRP-S1165D830-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059087
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-S1165D830-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

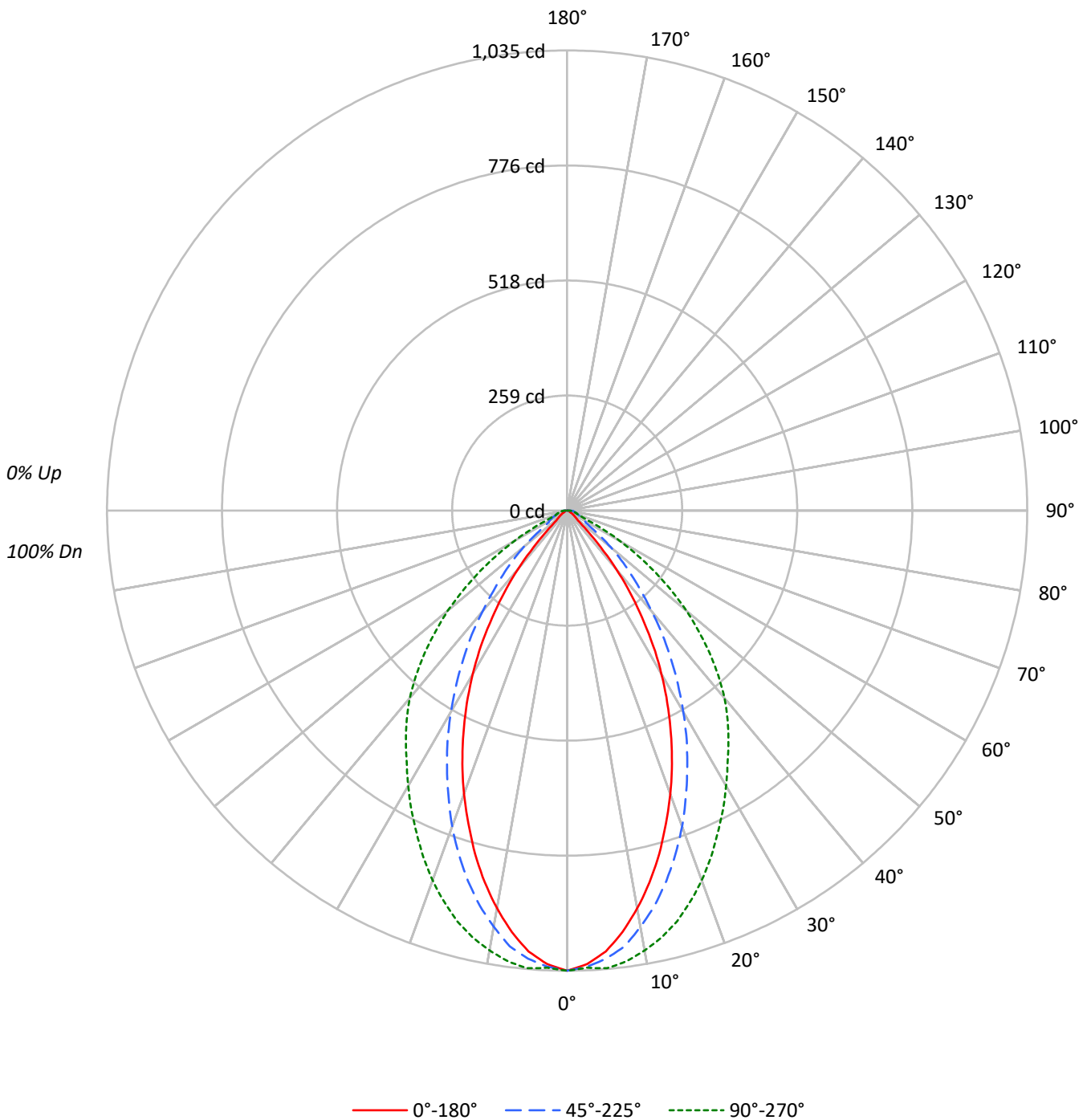
Lumens per Lamp: N/A
Luminaire Lumens: 1242.3 lumens
Efficiency: N/A
Efficacy: 29.7 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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

TEST NUMBER: P1059087

CATALOG NUMBER: S123RDRP-S1165D830-X4F0-XX-UDD-BVL-W

Luminous Intensity Polar Plot





TEST NUMBER: P1059087

CATALOG NUMBER: S123RDRP-S1165D830-X4F0-XX-UDD-BVL-W

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°	12151	12151	12151
5°	11732	11924	12181
10°	10830	11333	11981
15°	9719	10480	11621
20°	8479	9447	11061
25°	7153	8280	10377
30°	5752	7079	9697
35°	4210	5829	9064
40°	2626	4543	8441
45°	993	3388	7519
50°	471	2335	6408
55°	362	1280	4954
60°	256	1085	3257
65°	189	945	1361
70°	185	886	886
75°	245	926	926
80°	365	1102	1014
85°	728	1832	1469

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7519 cd/sqm



TEST NUMBER: P1059087

CATALOG NUMBER: S123RDRP-S1165D830-X4F0-XX-UDD-BVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.0	7.6
10°-20°	243.6	19.6
20°-30°	301.5	24.3
30°-40°	270.3	21.8
40°-50°	177.2	14.3
50°-60°	88.7	7.1
60°-70°	34.6	2.8
70°-80°	19.5	1.6
80°-90°	12.0	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°	640.1	51.5
0°-40°	910.3	73.3
0°-60°	1176.2	94.7
0°-90°	1242.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1242.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1035	1035	1035	1035	1035	
5°	995	1012	1012	1022	1033	92
15°	800	832	862	919	956	223
25°	552	586	639	730	801	252
35°	294	333	407	529	632	183
45°	60	96	204	350	453	57
55°	18	22	62	171	242	16
65°	7	20	34	45	49	7
75°	5	20	20	20	20	6
85°	5	14	14	14	11	5
90°	0	0	0	0	0	



TEST NUMBER: P1059087

CATALOG NUMBER: S123RDRP-S1165D830-X4F0-XX-UDD-BVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1034.8	1034.8	1034.8	1034.8	1034.8
2.5°	1021.2	1036.1	1026.6	1028.0	1029.3
5°	995.3	1011.6	1011.6	1022.5	1033.4
7.5°	955.9	974.9	988.5	1007.6	1022.5
10°	908.3	931.4	950.5	984.4	1004.8
12.5°	856.6	885.2	909.7	954.5	983.1
15°	799.5	832.2	862.1	919.2	955.9
17.5°	738.3	771.0	810.4	877.0	921.9
20°	678.5	711.1	756.0	830.8	885.2
22.5°	616.0	650.0	697.5	780.5	844.4
25°	552.1	586.0	639.1	730.2	800.9
27.5°	488.1	522.1	582.0	681.2	758.7
30°	424.2	458.2	522.1	628.2	715.2
32.5°	360.3	397.0	463.7	579.2	671.7
35°	293.7	333.1	406.6	528.9	632.3
37.5°	232.5	269.2	352.2	485.4	592.8
40°	171.3	210.8	296.4	443.3	550.7
42.5°	111.5	153.7	246.1	397.0	503.1
45°	59.8	96.5	204.0	349.5	452.8
47.5°	32.6	53.0	164.5	299.1	401.1
50°	25.8	29.9	127.8	255.6	350.8
52.5°	21.8	24.5	91.1	214.8	295.1
55°	17.7	21.8	62.5	171.3	242.0
57.5°	15.0	19.0	49.0	133.3	189.0
60°	10.9	16.3	46.2	97.9	138.7
62.5°	8.2	17.7	40.8	68.0	91.1
65°	6.8	20.4	34.0	44.9	49.0
67.5°	5.4	21.8	29.9	28.6	28.6
70°	5.4	20.4	25.8	24.5	25.8
72.5°	5.4	21.8	23.1	21.8	23.1
75°	5.4	20.4	20.4	20.4	20.4
77.5°	5.4	19.0	19.0	17.7	17.7
80°	5.4	16.3	16.3	16.3	15.0
82.5°	5.4	15.0	15.0	15.0	12.2
85°	5.4	13.6	13.6	13.6	10.9
87.5°	4.1	12.2	13.6	12.2	8.2
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1059087
 CATALOG NUMBER: S123RDRP-S1165D830-X4F0-XX-UDD-BVL-W

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	1.03	2.28	1.39	2.59	2.91	15.28	16.54	15.65	16.85	17.17
	3H	3.36	4.47	3.74	4.80	5.17	15.36	16.47	15.74	16.81	17.17
	4H	4.46	5.50	4.87	5.85	6.23	15.44	16.47	15.84	16.83	17.21
	6H	5.45	6.40	5.86	6.77	7.16	15.55	16.49	15.96	16.87	17.26
	8H	5.93	6.82	6.36	7.22	7.62	15.60	16.50	16.04	16.89	17.30
	12H	6.48	7.34	6.91	7.72	8.15	15.68	16.54	16.12	16.93	17.36
4H	2H	4.28	5.31	4.68	5.67	6.05	15.14	16.17	15.54	16.52	16.91
	3H	6.60	7.44	7.01	7.85	8.25	15.31	16.16	15.73	16.56	16.97
	4H	7.97	8.73	8.41	9.15	9.59	15.47	16.22	15.90	16.64	17.09
	6H	9.05	9.70	9.52	10.15	10.62	15.69	16.34	16.16	16.79	17.26
	8H	9.51	10.12	9.98	10.57	11.04	15.81	16.42	16.29	16.87	17.34
	12H	10.00	10.54	10.49	11.02	11.50	15.99	16.53	16.48	17.01	17.49
8H	4H	8.94	9.55	9.41	10.00	10.47	15.46	16.07	15.93	16.52	16.99
	6H	10.46	10.96	10.96	11.46	11.94	15.80	16.30	16.30	16.80	17.28
	8H	11.24	11.69	11.76	12.20	12.70	16.03	16.48	16.56	17.00	17.49
	12H	12.04	12.44	12.56	12.93	13.51	16.37	16.77	16.88	17.26	17.83
12H	4H	9.12	9.66	9.61	10.14	10.62	15.45	15.98	15.93	16.47	16.94
	6H	10.78	11.23	11.30	11.74	12.24	15.82	16.27	16.34	16.78	17.28
	8H	11.74	12.13	12.25	12.63	13.20	16.13	16.53	16.65	17.02	17.60