

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: P1059092

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059092
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-67)
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-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

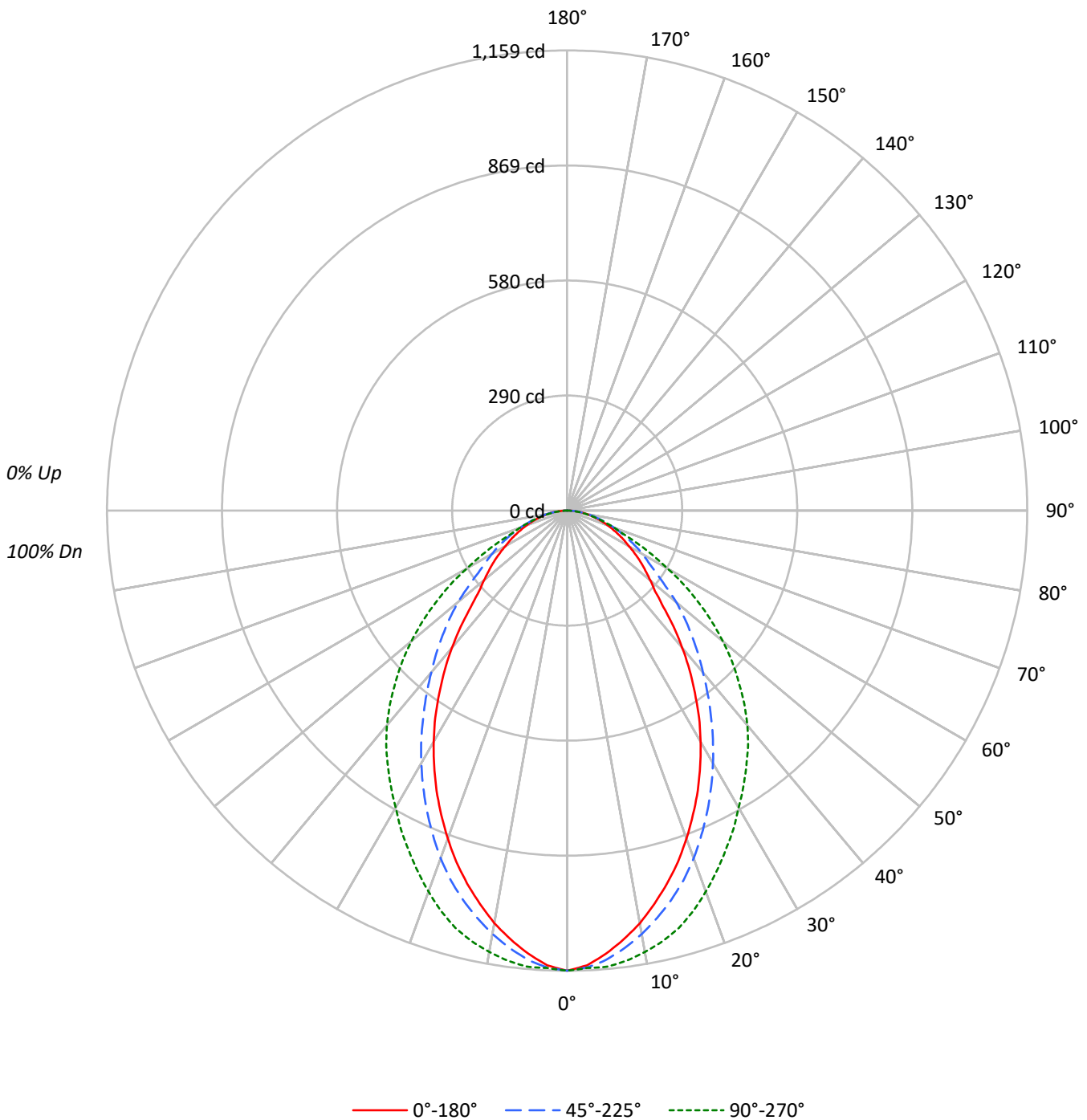
Lumens per Lamp: N/A
Luminaire Lumens: 2093.1 lumens
Efficiency: N/A
Efficacy: 50.1 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87					87			
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75					75			
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65					65			
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57					57			
5	80	69	60	54	78	68	60	54	66	59	54	64	58	53	62	57	53	51					51			
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45					45			
7	70	57	49	44	68	56	49	43	55	48	43	54	47	43	52	47	43	41					41			
8	65	53	45	39	64	52	45	39	51	44	39	50	43	39	48	43	39	37					37			
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	39	35	34					34			
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31					31			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13607	13607	13607
5°	13210	13387	13594
10°	12585	12910	13461
15°	11824	12337	13228
20°	10983	11645	12765
25°	10085	10824	12232
30°	9117	9965	11715
35°	8042	9055	11274
40°	6913	8163	10828
45°	5684	7355	10151
50°	4987	6551	9355
55°	4617	5589	8287
60°	4244	5136	6860
65°	3962	4718	5399
70°	3732	4292	4292
75°	3512	3943	3698
80°	3307	3584	3124
85°	3112	3476	2385

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10151 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.2	5.1
10°-20°	287.2	13.7
20°-30°	389.4	18.6
30°-40°	407.2	19.5
40°-50°	353.1	16.9
50°-60°	262.7	12.6
60°-70°	168.6	8.1
70°-80°	90.4	4.3
80°-90°	27.3	1.3
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°	783.8	37.4
0°-40°	1191.0	56.9
0°-60°	1806.8	86.3
0°-90°	2093.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2093.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1159	1159	1159	1159	1159	
5°	1121	1140	1136	1144	1153	105
15°	973	996	1015	1056	1088	273
25°	778	803	835	891	944	357
35°	561	588	632	712	786	350
45°	342	368	443	538	611	269
55°	226	231	273	350	405	202
65°	143	155	170	181	194	142
75°	77	90	87	83	82	82
85°	23	28	26	22	18	26
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1158.8	1158.8	1158.8	1158.8	1158.8
2.5°	1146.5	1162.8	1152.0	1152.0	1153.3
5°	1120.7	1139.7	1135.7	1143.8	1153.3
7.5°	1089.5	1109.8	1111.2	1130.2	1143.8
10°	1055.5	1075.9	1082.7	1109.8	1128.9
12.5°	1014.8	1037.8	1050.1	1084.0	1111.2
15°	972.6	995.7	1014.8	1055.5	1088.1
17.5°	927.8	950.9	975.4	1021.5	1056.9
20°	878.9	903.4	931.9	978.1	1021.5
22.5°	828.6	854.5	884.3	934.6	983.5
25°	778.4	802.8	835.4	891.1	944.1
27.5°	725.4	751.2	785.2	846.3	906.1
30°	672.4	698.2	734.9	800.1	864.0
32.5°	618.1	643.9	683.3	756.7	825.9
35°	561.0	588.2	631.7	711.8	786.5
37.5°	506.7	532.5	581.4	669.7	748.5
40°	451.0	478.2	532.5	627.6	706.4
42.5°	396.7	423.8	487.7	582.8	660.2
45°	342.3	368.1	442.9	537.9	611.3
47.5°	300.2	319.2	400.7	490.4	563.8
50°	273.0	279.8	358.6	444.2	512.1
52.5°	248.6	254.0	312.4	398.0	459.2
55°	225.5	230.9	273.0	350.5	404.8
57.5°	202.4	209.2	243.2	301.6	350.5
60°	180.7	188.8	218.7	258.1	292.1
62.5°	161.7	171.2	194.3	218.7	241.8
65°	142.6	154.9	169.8	180.7	194.3
67.5°	125.0	138.6	146.7	149.4	150.8
70°	108.7	122.3	125.0	125.0	125.0
72.5°	92.4	107.3	104.6	103.2	101.9
75°	77.4	89.7	86.9	82.9	81.5
77.5°	62.5	73.4	69.3	66.6	62.5
80°	48.9	57.1	53.0	50.3	46.2
82.5°	36.7	42.1	38.0	35.3	31.2
85°	23.1	28.5	25.8	21.7	17.7
87.5°	12.2	16.3	13.6	12.2	6.8
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	15.86	17.34	16.22	17.65	17.97	18.61	20.10	18.98	20.41	20.72
	3H	17.57	18.90	17.94	19.22	19.59	19.63	20.96	20.01	21.29	21.65
	4H	18.23	19.47	18.63	19.82	20.20	20.00	21.24	20.40	21.59	21.97
	6H	18.73	19.88	19.14	20.24	20.64	20.25	21.40	20.67	21.77	22.16
	8H	18.91	20.00	19.33	20.39	20.79	20.32	21.42	20.75	21.81	22.21
	12H	19.03	20.08	19.46	20.46	20.89	20.36	21.41	20.79	21.79	22.22
4H	2H	16.63	17.88	17.03	18.23	18.61	18.88	20.13	19.28	20.48	20.86
	3H	18.56	19.59	18.97	19.99	20.39	20.14	21.17	20.55	21.57	21.97
	4H	19.37	20.30	19.80	20.71	21.15	20.62	21.55	21.06	21.97	22.41
	6H	20.01	20.82	20.47	21.26	21.72	21.01	21.81	21.46	22.26	22.72
	8H	20.24	20.99	20.70	21.44	21.90	21.12	21.87	21.58	22.32	22.79
	12H	20.41	21.08	20.89	21.56	22.04	21.19	21.86	21.67	22.34	22.81
8H	4H	19.69	20.44	20.15	20.89	21.36	20.82	21.57	21.28	22.02	22.48
	6H	20.48	21.11	20.98	21.60	22.08	21.30	21.93	21.80	22.42	22.90
	8H	20.81	21.37	21.32	21.88	22.37	21.48	22.04	22.00	22.55	23.04
	12H	21.09	21.58	21.60	22.07	22.64	21.61	22.11	22.12	22.60	23.17
12H	4H	19.71	20.39	20.19	20.87	21.34	20.83	21.51	21.31	21.98	22.46
	6H	20.53	21.10	21.05	21.61	22.10	21.34	21.90	21.86	22.41	22.90
	8H	20.93	21.42	21.44	21.92	22.48	21.57	22.07	22.08	22.56	23.12