

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: P1059159

Luminaire Tested: S123RDRP-S1165D950-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059159
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-S1165D950-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: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

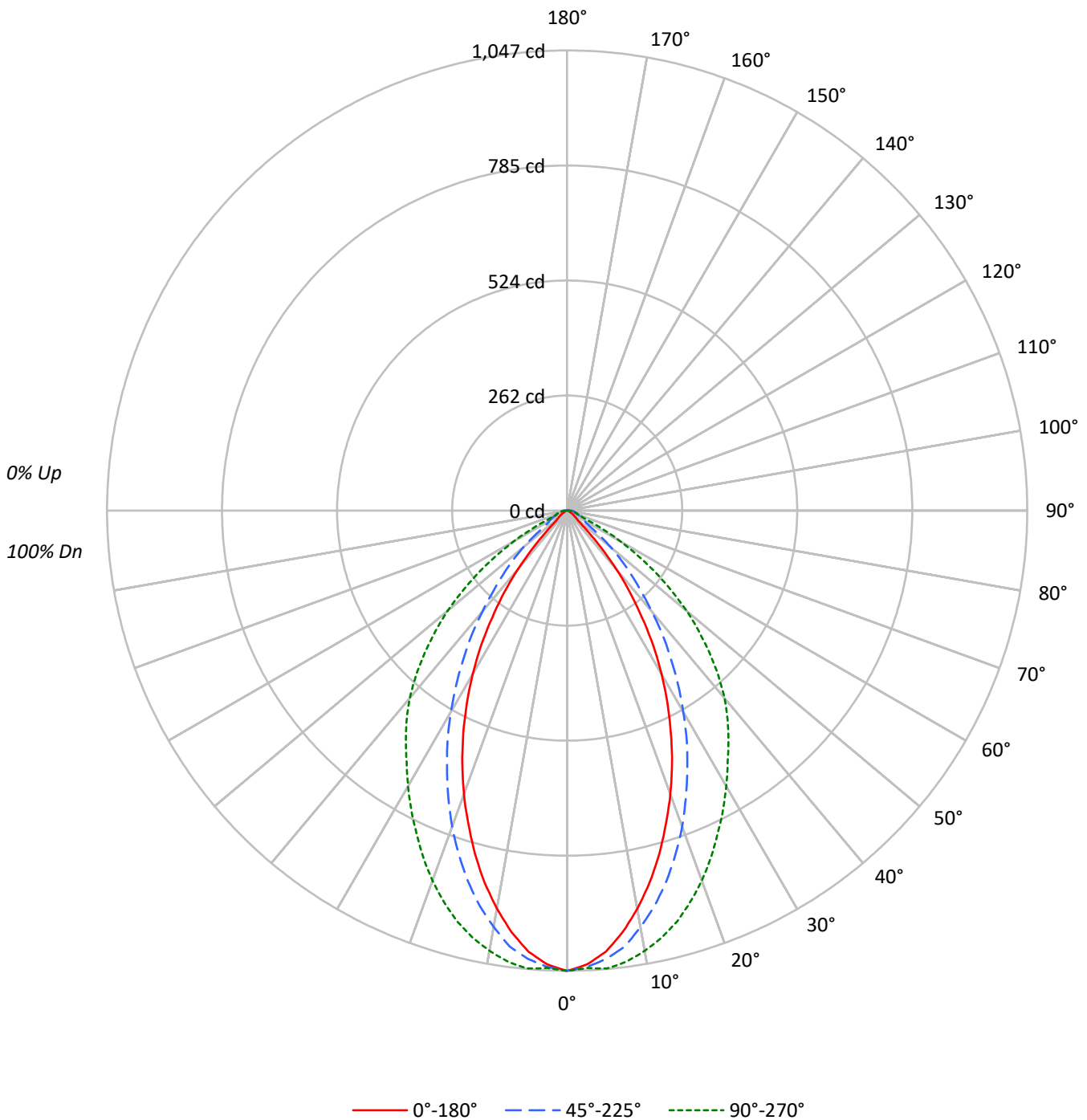
Lumens per Lamp: N/A
Luminaire Lumens: 1257.4 lumens
Efficiency: N/A
Efficacy: 30.1 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12298	12298	12298
5°	11875	12069	12330
10°	10961	11470	12127
15°	9837	10608	11762
20°	8582	9562	11195
25°	7240	8380	10502
30°	5822	7166	9815
35°	4262	5899	9174
40°	2658	4599	8544
45°	1006	3428	7611
50°	477	2364	6487
55°	366	1296	5016
60°	258	1099	3297
65°	192	956	1375
70°	189	896	896
75°	250	935	935
80°	372	1116	1021
85°	741	1859	1482

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7611 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.1	7.6
10°-20°	246.5	19.6
20°-30°	305.2	24.3
30°-40°	273.6	21.8
40°-50°	179.4	14.3
50°-60°	89.8	7.1
60°-70°	35.0	2.8
70°-80°	19.7	1.6
80°-90°	12.2	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°	647.8	51.5
0°-40°	921.4	73.3
0°-60°	1190.6	94.7
0°-90°	1257.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1257.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1047	1047	1047	1047	1047	
5°	1007	1024	1024	1035	1046	93
15°	809	842	873	930	968	225
25°	559	593	647	739	811	255
35°	297	337	412	535	640	185
45°	61	98	206	354	458	58
55°	18	22	63	173	245	16
65°	7	21	34	45	50	7
75°	6	21	21	21	21	6
85°	6	14	14	14	11	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1047.3	1047.3	1047.3	1047.3	1047.3
2.5°	1033.6	1048.7	1039.1	1040.5	1041.8
5°	1007.4	1023.9	1023.9	1035.0	1046.0
7.5°	967.5	986.8	1000.5	1019.8	1035.0
10°	919.3	942.7	962.0	996.4	1017.1
12.5°	867.0	895.9	920.7	966.1	995.0
15°	809.2	842.3	872.6	930.4	967.5
17.5°	747.3	780.3	820.3	887.7	933.1
20°	686.8	719.8	765.2	840.9	895.9
22.5°	623.4	657.9	706.0	790.0	854.7
25°	558.8	593.2	646.8	739.1	810.6
27.5°	494.1	528.5	589.0	689.5	768.0
30°	429.4	463.8	528.5	635.8	723.9
32.5°	364.7	401.9	469.3	586.3	679.9
35°	297.3	337.2	411.5	535.4	640.0
37.5°	235.3	272.5	356.5	491.3	600.1
40°	173.4	213.3	300.0	448.7	557.4
42.5°	112.9	155.5	249.1	401.9	509.2
45°	60.6	97.7	206.4	353.7	458.3
47.5°	33.0	53.7	166.5	302.8	406.0
50°	26.1	30.3	129.4	258.7	355.1
52.5°	22.0	24.8	92.2	217.4	298.6
55°	17.9	22.0	63.3	173.4	245.0
57.5°	15.1	19.3	49.5	134.9	191.3
60°	11.0	16.5	46.8	99.1	140.4
62.5°	8.3	17.9	41.3	68.8	92.2
65°	6.9	20.6	34.4	45.4	49.5
67.5°	5.5	22.0	30.3	28.9	28.9
70°	5.5	20.6	26.1	24.8	26.1
72.5°	5.5	22.0	23.4	22.0	23.4
75°	5.5	20.6	20.6	20.6	20.6
77.5°	5.5	19.3	19.3	17.9	17.9
80°	5.5	16.5	16.5	16.5	15.1
82.5°	5.5	15.1	15.1	15.1	12.4
85°	5.5	13.8	13.8	13.8	11.0
87.5°	4.1	12.4	13.8	12.4	8.3
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	1.08	2.34	1.45	2.65	2.97	15.32	16.58	15.69	16.89	17.21
	3H	3.41	4.52	3.79	4.85	5.21	15.40	16.52	15.79	16.85	17.21
	4H	4.51	5.54	4.91	5.89	6.28	15.48	16.51	15.89	16.87	17.25
	6H	5.50	6.45	5.91	6.82	7.21	15.59	16.53	16.00	16.91	17.30
	8H	5.98	6.88	6.41	7.27	7.67	15.64	16.54	16.07	16.93	17.34
	12H	6.54	7.40	6.97	7.78	8.21	15.72	16.58	16.16	16.97	17.40
4H	2H	4.33	5.36	4.73	5.71	6.10	15.18	16.21	15.58	16.56	16.95
	3H	6.64	7.48	7.05	7.89	8.29	15.35	16.20	15.77	16.60	17.01
	4H	8.01	8.76	8.44	9.18	9.63	15.51	16.26	15.94	16.68	17.12
	6H	9.10	9.75	9.56	10.20	10.66	15.73	16.38	16.19	16.83	17.30
	8H	9.55	10.16	10.02	10.61	11.08	15.85	16.46	16.32	16.91	17.38
	12H	10.05	10.58	10.53	11.07	11.54	16.03	16.57	16.52	17.05	17.52
8H	4H	8.98	9.59	9.45	10.04	10.51	15.50	16.11	15.97	16.56	17.03
	6H	10.51	11.00	11.01	11.50	11.98	15.84	16.34	16.34	16.84	17.32
	8H	11.28	11.73	11.80	12.24	12.74	16.07	16.52	16.59	17.04	17.53
	12H	12.08	12.48	12.60	12.98	13.55	16.41	16.80	16.92	17.30	17.87
12H	4H	9.16	9.70	9.65	10.18	10.66	15.49	16.02	15.97	16.51	16.98
	6H	10.82	11.27	11.34	11.79	12.28	15.86	16.31	16.38	16.82	17.32
	8H	11.77	12.17	12.29	12.67	13.24	16.17	16.57	16.68	17.06	17.63