

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: P1059148

Luminaire Tested: S123RDRP-S1165D940-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059148
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-30)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S1165D940-X4F0-XX-UDD-BVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

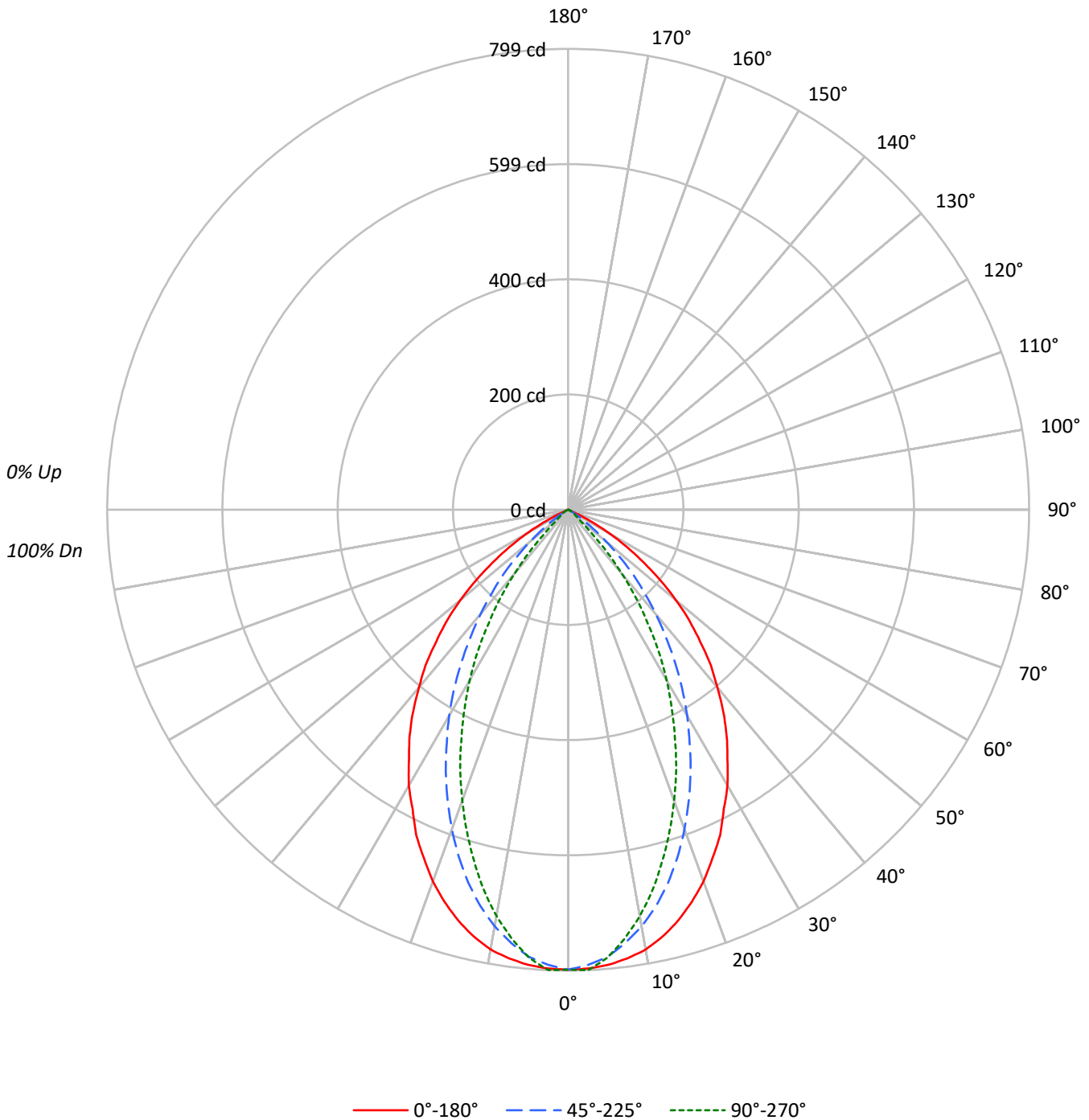
Lumens per Lamp: N/A
Luminaire Lumens: 910.1 lumens
Efficiency: N/A
Efficacy: 21.8 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	113	110	107	104	110	107	105	103	103	101	100	100	98	97	96	95	94	92					92			
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84					84			
3	100	92	87	82	98	91	86	82	88	84	80	86	82	79	83	80	78	76					76			
4	94	85	79	74	92	84	78	74	82	77	73	80	75	72	78	74	71	69					69			
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65	63					63			
6	83	73	66	61	81	72	66	61	70	65	60	69	64	60	67	63	60	58					58			
7	78	68	61	56	77	67	60	56	66	60	56	64	59	55	63	58	55	53					53			
8	74	63	56	52	72	62	56	51	61	55	51	60	55	51	59	54	51	49					49			
9	70	59	52	48	68	58	52	48	57	52	47	56	51	47	55	51	47	46					46			
10	66	55	49	44	65	55	48	44	54	48	44	53	48	44	52	47	44	42					42			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9366	9366	9366
5°	9340	9174	9189
10°	9234	8744	8530
15°	8962	8134	7666
20°	8570	7366	6708
25°	8071	6507	5675
30°	7489	5590	4632
35°	6868	4622	3443
40°	6162	3622	2204
45°	5374	2645	917
50°	4457	1571	353
55°	3286	657	262
60°	1992	242	150
65°	536	142	72
70°	0	45	45
75°	0	0	59
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5374 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.4	8.1
10°-20°	189.5	20.8
20°-30°	236.2	25.9
30°-40°	211.2	23.2
40°-50°	133.3	14.6
50°-60°	55.8	6.1
60°-70°	10.5	1.2
70°-80°	0.4	0.0
80°-90°	0.0	0.0
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°	499.1	54.8
0°-40°	710.2	78.0
0°-60°	899.3	98.8
0°-90°	910.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	910.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	798	798	798	798	798	
5°	792	791	778	781	780	75
15°	737	719	669	641	631	207
25°	623	573	502	458	438	285
35°	479	410	322	265	240	298
45°	324	252	159	85	55	250
55°	160	110	32	13	13	144
65°	19	14	5	3	3	27
75°	0	0	0	0	1	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	797.6	797.6	797.6	797.6	797.6
2.5°	796.3	797.6	789.9	797.6	798.9
5°	792.4	791.1	778.3	780.9	779.6
7.5°	784.7	780.9	757.8	752.6	750.0
10°	774.4	764.2	733.3	720.5	715.4
12.5°	757.8	743.6	703.8	683.3	675.6
15°	737.2	719.2	669.1	640.9	630.6
17.5°	712.8	687.1	630.6	599.8	584.4
20°	685.8	649.9	589.5	552.3	536.8
22.5°	653.7	613.9	545.8	506.0	489.3
25°	622.9	572.8	502.2	458.5	438.0
27.5°	584.4	531.7	455.9	411.0	389.2
30°	552.3	491.9	412.3	362.2	341.6
32.5°	513.7	450.8	367.3	312.1	292.8
35°	479.1	409.7	322.4	264.6	240.2
37.5°	441.8	369.9	277.4	217.1	193.9
40°	402.0	330.1	236.3	169.5	143.8
42.5°	366.0	290.3	195.2	125.9	100.2
45°	323.6	251.7	159.3	84.8	55.2
47.5°	285.1	215.8	120.7	47.5	29.5
50°	244.0	178.5	86.0	24.4	19.3
52.5°	201.6	142.6	56.5	16.7	15.4
55°	160.5	110.5	32.1	12.8	12.8
57.5°	120.7	79.6	16.7	10.3	9.0
60°	84.8	52.7	10.3	7.7	6.4
62.5°	48.8	30.8	7.7	5.1	5.1
65°	19.3	14.1	5.1	2.6	2.6
67.5°	1.3	3.9	2.6	1.3	1.3
70°	0.0	0.0	1.3	1.3	1.3
72.5°	0.0	0.0	1.3	1.3	1.3
75°	0.0	0.0	0.0	0.0	1.3
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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	12.96	14.14	13.33	14.45	14.76	0.00	0.00	0.00	0.00	0.00
	3H	12.80	13.83	13.18	14.16	14.53	0.00	0.00	0.00	0.00	0.00
	4H	12.72	13.67	13.12	14.02	14.41	0.00	0.00	0.00	0.00	0.00
	6H	12.62	13.49	13.04	13.87	14.26	0.00	0.00	0.00	0.00	0.00
	8H	12.57	13.39	13.01	13.79	14.19	0.00	0.00	0.00	0.00	0.00
	12H	12.52	13.31	12.96	13.69	14.12	0.00	0.00	0.00	0.00	0.00
4H	2H	12.72	13.67	13.12	14.03	14.41	0.00	0.00	0.00	0.00	0.00
	3H	12.55	13.32	12.97	13.73	14.13	0.00	0.00	0.00	0.00	0.00
	4H	12.45	13.13	12.89	13.55	14.00	0.00	0.00	0.00	0.00	0.00
	6H	12.35	12.94	12.82	13.39	13.86	0.00	0.00	0.00	0.00	0.00
	8H	12.29	12.83	12.76	13.28	13.76	0.00	0.00	0.00	0.00	0.00
	12H	12.23	12.71	12.72	13.19	13.67	0.00	0.00	0.00	0.00	0.00
8H	4H	12.29	12.83	12.76	13.28	13.76	0.00	0.00	0.00	0.00	0.00
	6H	12.17	12.61	12.68	13.11	13.60	0.00	0.00	0.00	0.00	0.00
	8H	12.10	12.50	12.63	13.02	13.51	0.00	0.00	0.00	0.00	0.00
	12H	12.05	12.40	12.56	12.89	13.47	0.00	0.00	0.00	0.00	0.00
12H	4H	12.23	12.71	12.72	13.19	13.67	0.00	0.00	0.00	0.00	0.00
	6H	12.10	12.50	12.63	13.02	13.51	0.00	0.00	0.00	0.00	0.00
	8H	12.05	12.40	12.56	12.89	13.47	0.00	0.00	0.00	0.00	0.00