

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



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: P1059801

Luminaire Tested: S123RDR-H775D940-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059801
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-65)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H775D940-X4F0-XX-UDD-SVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

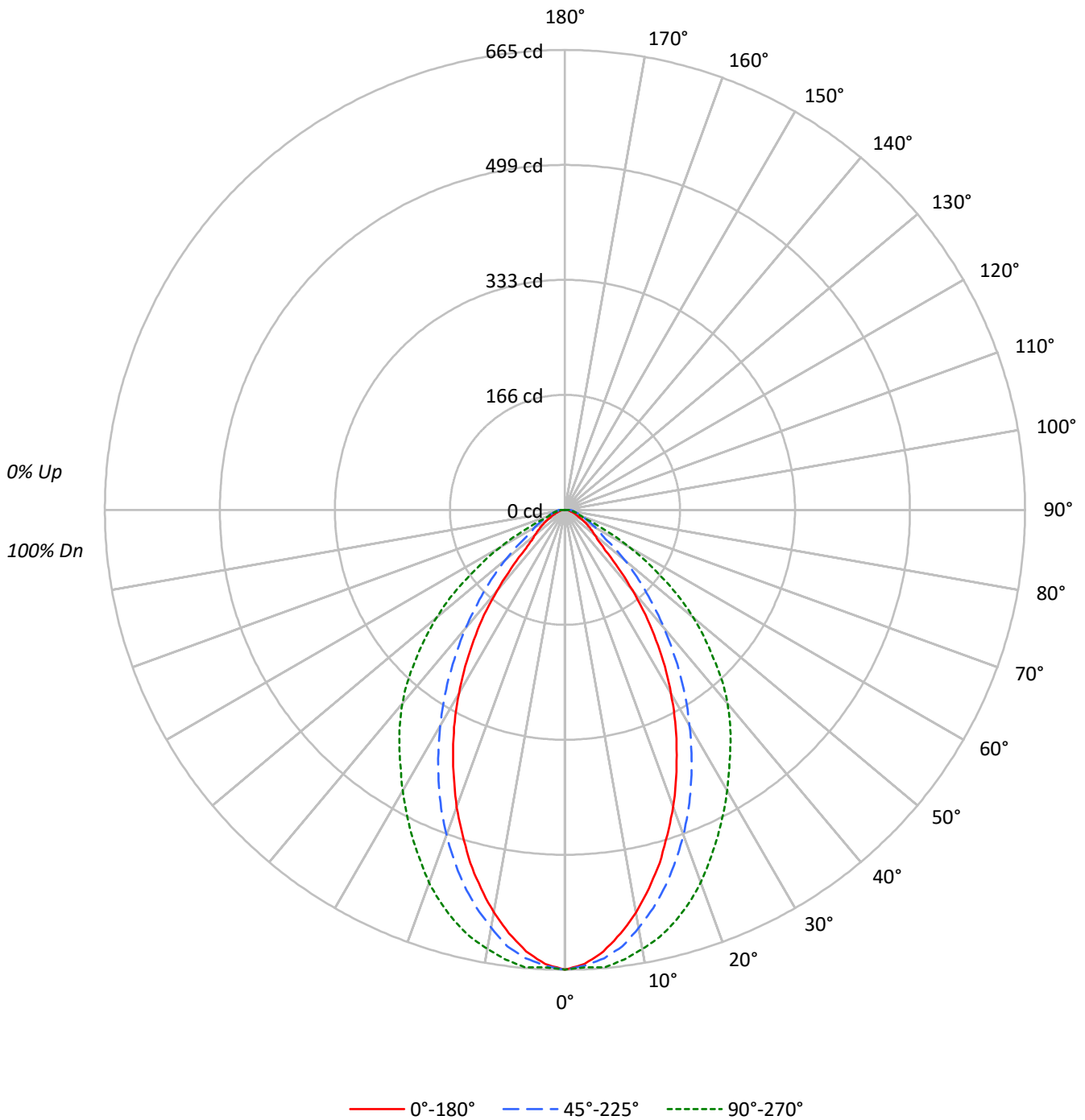
Lumens per Lamp: N/A
Luminaire Lumens: 892.4 lumens
Efficiency: N/A
Efficacy: 38.0 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.5
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	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89			89	
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79			79	
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71			71	
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66	64			64	
5	85	74	67	61	83	73	66	61	71	65	60	69	64	60	68	63	59	58			58	
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52			52	
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48			48	
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44			44	
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40			40	
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37			37	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7806	7806	7806
5°	7553	7670	7826
10°	7050	7316	7690
15°	6425	6837	7489
20°	5717	6253	7171
25°	4953	5596	6762
30°	4154	4881	6359
35°	3291	4156	5978
40°	2328	3418	5607
45°	1372	2702	5047
50°	1027	2051	4421
55°	862	1386	3550
60°	698	1184	2522
65°	550	1009	1331
70°	481	879	821
75°	449	826	785
80°	446	893	784
85°	552	1334	997

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5047 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.2	6.9
10°-20°	159.0	17.8
20°-30°	202.5	22.7
30°-40°	190.5	21.3
40°-50°	137.2	15.4
50°-60°	79.2	8.9
60°-70°	36.2	4.1
70°-80°	18.1	2.0
80°-90°	8.5	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°	422.7	47.4
0°-40°	613.1	68.7
0°-60°	829.5	93.0
0°-90°	892.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	892.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	665	665	665	665	665	
5°	641	652	651	657	664	60
15°	528	548	562	594	616	147
25°	382	402	432	480	522	175
35°	230	249	290	357	417	142
45°	83	103	163	244	304	70
55°	42	44	68	129	173	38
65°	20	28	36	40	48	20
75°	10	19	18	17	17	11
85°	4	9	10	9	7	4
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	664.8	664.8	664.8	664.8	664.8
2.5°	657.3	665.6	659.8	660.6	662.3
5°	640.8	651.5	650.7	657.3	663.9
7.5°	617.7	630.1	636.7	646.6	655.7
10°	591.3	605.3	613.6	631.7	644.9
12.5°	560.7	578.9	589.6	613.6	632.6
15°	528.5	547.5	562.4	593.7	616.0
17.5°	492.2	512.8	531.8	569.0	596.2
20°	457.5	477.3	500.4	540.9	573.9
22.5°	419.5	441.0	467.4	510.3	547.5
25°	382.3	402.2	431.9	479.8	521.9
27.5°	345.2	365.0	396.4	449.2	495.5
30°	306.4	327.0	360.0	418.7	469.0
32.5°	268.4	288.2	325.4	388.9	441.8
35°	229.6	249.4	289.9	356.7	417.0
37.5°	191.6	212.2	255.2	330.3	392.3
40°	151.9	174.2	223.0	303.1	365.8
42.5°	114.8	138.7	190.8	275.0	336.9
45°	82.6	103.2	162.7	244.4	303.9
47.5°	64.4	75.1	137.1	213.1	273.3
50°	56.2	57.8	112.3	184.2	242.0
52.5°	48.7	50.4	88.4	156.9	208.9
55°	42.1	43.8	67.7	128.8	173.4
57.5°	35.5	38.0	56.2	102.4	139.6
60°	29.7	33.0	50.4	78.5	107.4
62.5°	23.9	29.7	42.9	57.8	76.8
65°	19.8	28.1	36.3	40.5	47.9
67.5°	16.5	25.6	30.6	28.9	28.1
70°	14.0	23.1	25.6	23.1	23.9
72.5°	11.6	21.5	21.5	19.8	19.8
75°	9.9	19.0	18.2	17.3	17.3
77.5°	8.3	16.5	15.7	14.9	14.0
80°	6.6	13.2	13.2	12.4	11.6
82.5°	5.8	10.7	10.7	10.7	9.1
85°	4.1	9.1	9.9	9.1	7.4
87.5°	3.3	8.3	8.3	7.4	5.0
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	7.11	8.43	7.48	8.74	9.06	14.47	15.79	14.84	16.11	16.42
	3H	8.50	9.67	8.88	10.00	10.36	14.70	15.87	15.08	16.20	16.57
	4H	9.05	10.14	9.45	10.49	10.88	14.82	15.91	15.22	16.26	16.64
	6H	9.49	10.49	9.90	10.86	11.25	14.93	15.93	15.35	16.30	16.70
	8H	9.66	10.61	10.09	11.00	11.41	14.98	15.93	15.41	16.32	16.73
	12H	9.82	10.73	10.25	11.11	11.54	15.04	15.95	15.48	16.33	16.76
4H	2H	8.21	9.30	8.61	9.65	10.03	14.43	15.52	14.83	15.87	16.26
	3H	9.87	10.76	10.28	11.17	11.57	14.79	15.68	15.20	16.09	16.49
	4H	10.68	11.48	11.12	11.90	12.34	14.99	15.79	15.42	16.21	16.65
	6H	11.32	12.01	11.78	12.45	12.92	15.22	15.91	15.68	16.35	16.82
	8H	11.55	12.20	12.02	12.65	13.12	15.32	15.97	15.79	16.41	16.88
	12H	11.77	12.34	12.25	12.82	13.29	15.45	16.02	15.93	16.50	16.98
8H	4H	11.12	11.77	11.59	12.22	12.69	15.02	15.67	15.49	16.12	16.59
	6H	12.03	12.56	12.54	13.06	13.54	15.35	15.88	15.86	16.38	16.86
	8H	12.45	12.93	12.97	13.44	13.94	15.54	16.02	16.06	16.54	17.03
	12H	12.87	13.29	13.38	13.79	14.36	15.79	16.21	16.31	16.71	17.28
12H	4H	11.18	11.75	11.67	12.24	12.71	15.01	15.59	15.50	16.07	16.54
	6H	12.17	12.65	12.69	13.16	13.65	15.37	15.85	15.89	16.36	16.85
	8H	12.71	13.13	13.22	13.62	14.19	15.63	16.05	16.14	16.54	17.11