

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: P1059765

Luminaire Tested: S123RDR-H775D850-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059765
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-H775D850-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: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

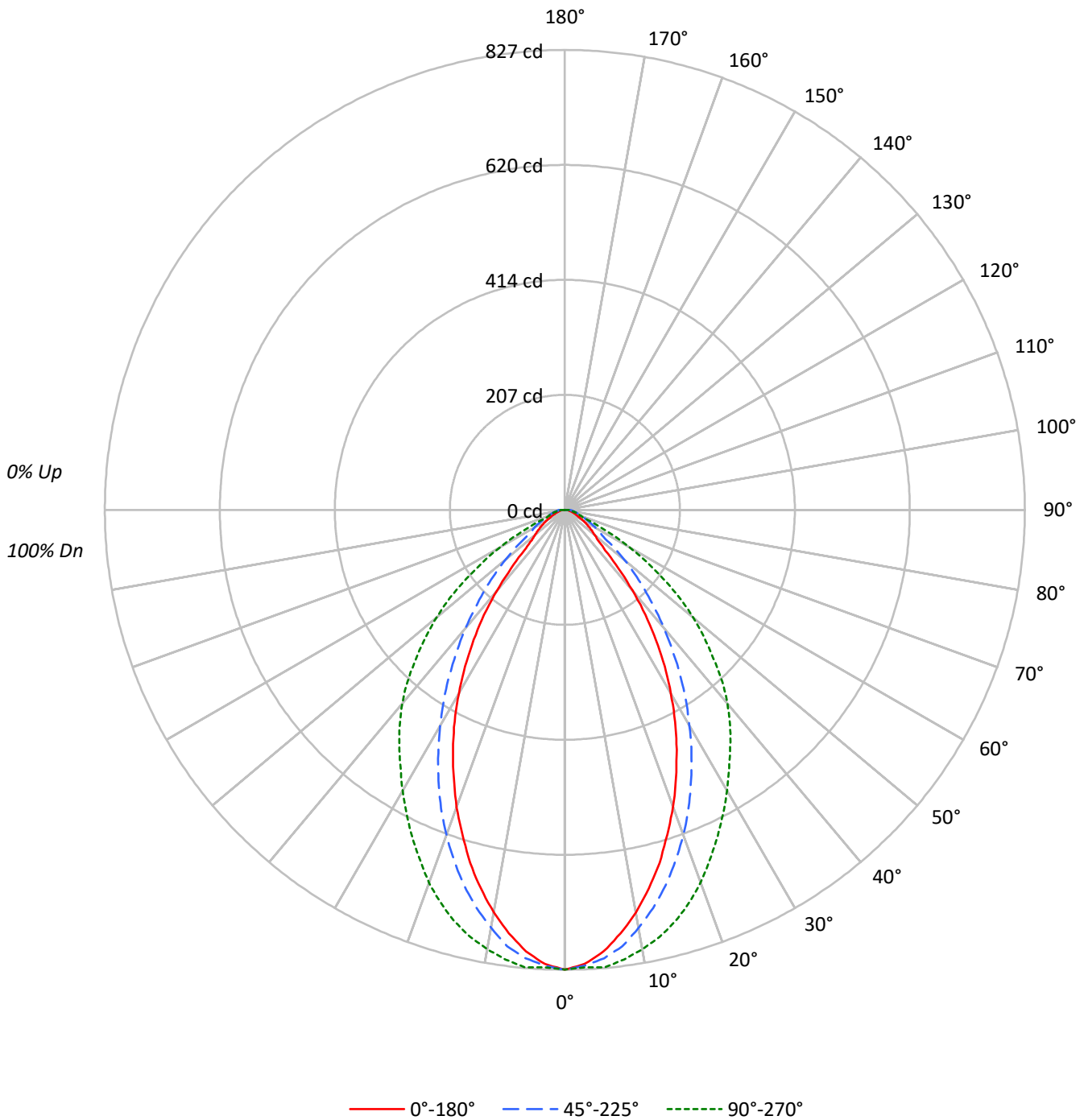
Lumens per Lamp: N/A
Luminaire Lumens: 1109.8 lumens
Efficiency: N/A
Efficacy: 47.2 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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°	9707	9707	9707
5°	9394	9539	9733
10°	8767	9099	9564
15°	7991	8502	9314
20°	7110	7778	8920
25°	6161	6959	8410
30°	5166	6072	7909
35°	4093	5168	7434
40°	2897	4251	6975
45°	1705	3359	6276
50°	1275	2552	5497
55°	1073	1724	4416
60°	869	1470	3135
65°	684	1256	1656
70°	601	1092	1023
75°	558	1025	980
80°	555	1109	974
85°	687	1657	1240

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6276 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.1	6.9
10°-20°	197.8	17.8
20°-30°	251.8	22.7
30°-40°	236.9	21.3
40°-50°	170.6	15.4
50°-60°	98.5	8.9
60°-70°	45.0	4.1
70°-80°	22.5	2.0
80°-90°	10.6	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°	525.7	47.4
0°-40°	762.5	68.7
0°-60°	1031.7	93.0
0°-90°	1109.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1109.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	827	827	827	827	827	
5°	797	810	809	818	826	74
15°	657	681	699	738	766	183
25°	476	500	537	597	649	218
35°	286	310	360	444	519	177
45°	103	128	202	304	378	87
55°	52	54	84	160	216	47
65°	25	35	45	50	60	25
75°	12	24	23	22	22	13
85°	5	11	12	11	9	6
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	826.7	826.7	826.7	826.7	826.7
2.5°	817.5	827.8	820.6	821.6	823.7
5°	797.0	810.3	809.3	817.5	825.7
7.5°	768.2	783.6	791.8	804.2	815.5
10°	735.3	752.8	763.1	785.7	802.1
12.5°	697.3	719.9	733.3	763.1	786.7
15°	657.3	680.9	699.4	738.4	766.2
17.5°	612.1	637.8	661.4	707.6	741.5
20°	569.0	593.6	622.4	672.7	713.8
22.5°	521.7	548.4	581.3	634.7	680.9
25°	475.5	500.2	537.1	596.7	649.1
27.5°	429.3	453.9	493.0	558.7	616.2
30°	381.0	406.7	447.8	520.7	583.3
32.5°	333.8	358.4	404.6	483.7	549.5
35°	285.5	310.2	360.5	443.7	518.6
37.5°	238.3	263.9	317.3	410.8	487.8
40°	189.0	216.7	277.3	376.9	455.0
42.5°	142.8	172.5	237.2	342.0	419.0
45°	102.7	128.4	202.3	304.0	377.9
47.5°	80.1	93.5	170.5	265.0	339.9
50°	69.8	71.9	139.7	229.0	300.9
52.5°	60.6	62.6	109.9	195.1	259.8
55°	52.4	54.4	84.2	160.2	215.7
57.5°	44.2	47.2	69.8	127.4	173.6
60°	37.0	41.1	62.6	97.6	133.5
62.5°	29.8	37.0	53.4	71.9	95.5
65°	24.6	34.9	45.2	50.3	59.6
67.5°	20.5	31.8	38.0	35.9	34.9
70°	17.5	28.8	31.8	28.8	29.8
72.5°	14.4	26.7	26.7	24.6	24.6
75°	12.3	23.6	22.6	21.6	21.6
77.5°	10.3	20.5	19.5	18.5	17.5
80°	8.2	16.4	16.4	15.4	14.4
82.5°	7.2	13.4	13.4	13.4	11.3
85°	5.1	11.3	12.3	11.3	9.2
87.5°	4.1	10.3	10.3	9.2	6.2
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	7.86	9.18	8.23	9.50	9.81	15.23	16.55	15.60	16.86	17.18
	3H	9.25	10.42	9.63	10.75	11.12	15.46	16.63	15.84	16.96	17.33
	4H	9.81	10.90	10.21	11.25	11.63	15.58	16.67	15.98	17.02	17.40
	6H	10.24	11.24	10.66	11.61	12.01	15.69	16.69	16.11	17.07	17.46
	8H	10.42	11.37	10.85	11.76	12.16	15.74	16.69	16.17	17.08	17.49
	12H	10.57	11.48	11.01	11.86	12.29	15.80	16.71	16.24	17.09	17.52
4H	2H	8.97	10.06	9.37	10.41	10.79	15.19	16.28	15.59	16.63	17.02
	3H	10.63	11.52	11.04	11.93	12.33	15.55	16.44	15.96	16.85	17.25
	4H	11.44	12.24	11.87	12.66	13.10	15.75	16.55	16.18	16.97	17.41
	6H	12.07	12.76	12.54	13.21	13.68	15.98	16.67	16.44	17.11	17.58
	8H	12.31	12.95	12.78	13.40	13.87	16.08	16.73	16.55	17.17	17.64
	12H	12.52	13.09	13.01	13.58	14.05	16.21	16.78	16.69	17.26	17.74
8H	4H	11.88	12.53	12.35	12.97	13.44	15.79	16.43	16.25	16.88	17.35
	6H	12.79	13.32	13.29	13.82	14.30	16.11	16.64	16.62	17.14	17.62
	8H	13.21	13.69	13.73	14.20	14.69	16.30	16.78	16.83	17.30	17.79
	12H	13.63	14.05	14.14	14.55	15.12	16.55	16.98	17.07	17.47	18.04
12H	4H	11.94	12.51	12.42	12.99	13.47	15.77	16.35	16.26	16.83	17.30
	6H	12.92	13.40	13.45	13.92	14.41	16.13	16.61	16.65	17.12	17.61
	8H	13.47	13.89	13.98	14.38	14.95	16.39	16.81	16.90	17.30	17.88