

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: P1059741

Luminaire Tested: S123RDR-H775D830-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059741
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-64)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H775D830-X4F0-XX-UDD-WVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

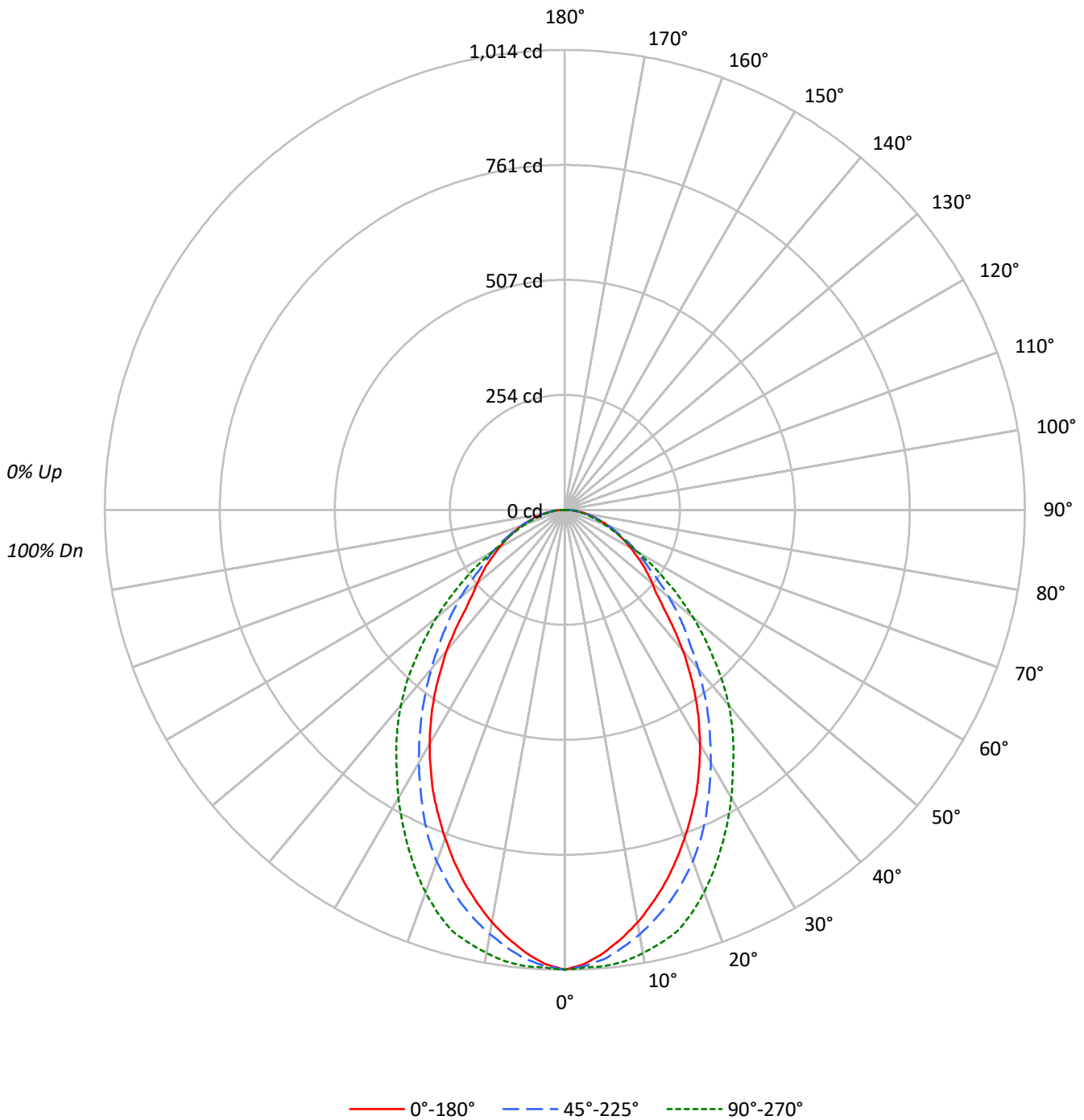
Lumens per Lamp: N/A
Luminaire Lumens: 1781.1 lumens
Efficiency: N/A
Efficacy: 75.8 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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				
1	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87				
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75				
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66				
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58				
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51				
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46				
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41				
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38				
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34				
10	58	46	39	34	57	45	38	34	45	38	34	44	38	33	43	37	33	32				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11902	11902	11902
5°	11557	11721	11906
10°	11015	11326	11837
15°	10360	10869	11686
20°	9636	10312	11216
25°	8895	9562	10601
30°	8078	8729	9947
35°	7190	7878	9290
40°	6205	7021	8612
45°	5128	6214	7720
50°	4605	5482	6741
55°	4268	4678	5589
60°	3934	4260	4281
65°	3659	3854	3587
70°	3444	3505	3145
75°	3244	3126	2772
80°	3070	2833	2597
85°	2937	3180	2937

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7720 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.9	5.3
10°-20°	252.9	14.2
20°-30°	342.2	19.2
30°-40°	351.6	19.7
40°-50°	295.3	16.6
50°-60°	211.7	11.9
60°-70°	134.8	7.6
70°-80°	74.1	4.2
80°-90°	24.7	1.4
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°	689.0	38.7
0°-40°	1040.6	58.4
0°-60°	1547.6	86.9
0°-90°	1781.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1781.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1014	1014	1014	1014	1014	
5°	980	998	994	1001	1010	92
15°	852	876	894	932	961	239
25°	686	713	738	778	818	315
35°	502	529	550	598	648	312
45°	309	336	374	428	465	244
55°	208	213	228	259	273	186
65°	132	140	139	131	129	131
75°	72	78	69	64	61	76
85°	22	23	24	24	22	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1013.6	1013.6	1013.6	1013.6	1013.6
2.5°	1002.3	1016.2	1006.6	1007.5	1010.1
5°	980.5	997.9	994.4	1001.4	1010.1
7.5°	953.4	972.6	973.5	990.1	1004.0
10°	923.8	943.8	949.9	975.2	992.7
12.5°	888.9	910.7	923.8	955.2	977.9
15°	852.2	875.8	894.1	932.5	961.3
17.5°	812.1	837.4	861.0	902.0	931.6
20°	771.1	798.2	825.2	863.6	897.6
22.5°	728.4	756.3	784.2	821.7	859.2
25°	686.5	712.7	738.0	778.1	818.2
27.5°	641.1	668.2	690.0	734.5	776.4
30°	595.8	622.8	643.8	690.0	733.6
32.5°	548.7	576.6	595.8	643.8	689.1
35°	501.6	528.6	549.6	598.4	648.1
37.5°	451.9	481.5	502.4	557.4	606.3
40°	404.8	432.7	458.0	515.5	561.8
42.5°	355.9	384.7	413.5	472.8	515.5
45°	308.8	335.8	374.2	428.3	464.9
47.5°	274.8	292.2	336.7	382.1	417.0
50°	252.1	259.1	300.1	340.2	369.0
52.5°	229.4	234.7	262.6	299.2	321.0
55°	208.5	212.8	228.5	259.1	273.0
57.5°	185.8	190.2	203.2	220.7	228.5
60°	167.5	171.0	181.4	184.1	182.3
62.5°	149.2	154.4	159.6	153.5	150.9
65°	131.7	139.6	138.7	130.8	129.1
67.5°	116.0	123.9	119.5	111.7	109.0
70°	100.3	108.2	102.1	94.2	91.6
72.5°	85.5	94.2	84.6	77.6	75.9
75°	71.5	78.5	68.9	63.7	61.1
77.5°	58.4	63.7	55.0	50.6	48.8
80°	45.4	48.8	41.9	39.3	38.4
82.5°	33.1	34.9	30.5	32.3	31.4
85°	21.8	22.7	23.6	24.4	21.8
87.5°	10.5	14.8	14.8	14.0	11.3
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	15.79	17.25	16.16	17.57	17.88	16.86	18.32	17.22	18.64	18.95
	3H	17.49	18.80	17.87	19.13	19.49	17.94	19.25	18.32	19.58	19.95
	4H	18.14	19.37	18.54	19.72	20.10	18.35	19.57	18.75	19.92	20.30
	6H	18.64	19.78	19.06	20.15	20.54	18.66	19.79	19.07	20.16	20.55
	8H	18.82	19.90	19.24	20.29	20.69	18.79	19.87	19.22	20.26	20.66
	12H	18.94	19.97	19.37	20.36	20.79	18.91	19.94	19.34	20.32	20.75
4H	2H	16.39	17.62	16.79	17.97	18.35	17.26	18.49	17.66	18.84	19.22
	3H	18.32	19.34	18.73	19.74	20.14	18.58	19.60	18.99	20.00	20.40
	4H	19.13	20.05	19.56	20.46	20.90	19.10	20.02	19.53	20.43	20.87
	6H	19.78	20.57	20.24	21.02	21.48	19.53	20.33	19.99	20.77	21.23
	8H	20.00	20.74	20.46	21.19	21.66	19.72	20.47	20.19	20.91	21.38
	12H	20.17	20.84	20.66	21.32	21.79	19.91	20.57	20.39	21.05	21.52
8H	4H	19.37	20.11	19.83	20.56	21.03	19.35	20.09	19.81	20.54	21.00
	6H	20.16	20.77	20.65	21.26	21.74	19.89	20.51	20.39	21.00	21.48
	8H	20.47	21.02	20.98	21.53	22.02	20.17	20.72	20.69	21.23	21.72
	12H	20.74	21.23	21.25	21.72	22.29	20.46	20.95	20.97	21.44	22.01
12H	4H	19.38	20.04	19.86	20.52	21.00	19.37	20.04	19.86	20.52	20.99
	6H	20.19	20.74	20.71	21.25	21.74	19.95	20.50	20.46	21.01	21.50
	8H	20.57	21.05	21.08	21.55	22.11	20.29	20.78	20.80	21.27	21.84