

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: P1059811

Luminaire Tested: S123RDR-H775D950-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059811
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-28)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H775D950-X4F0-XX-UDD-WVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

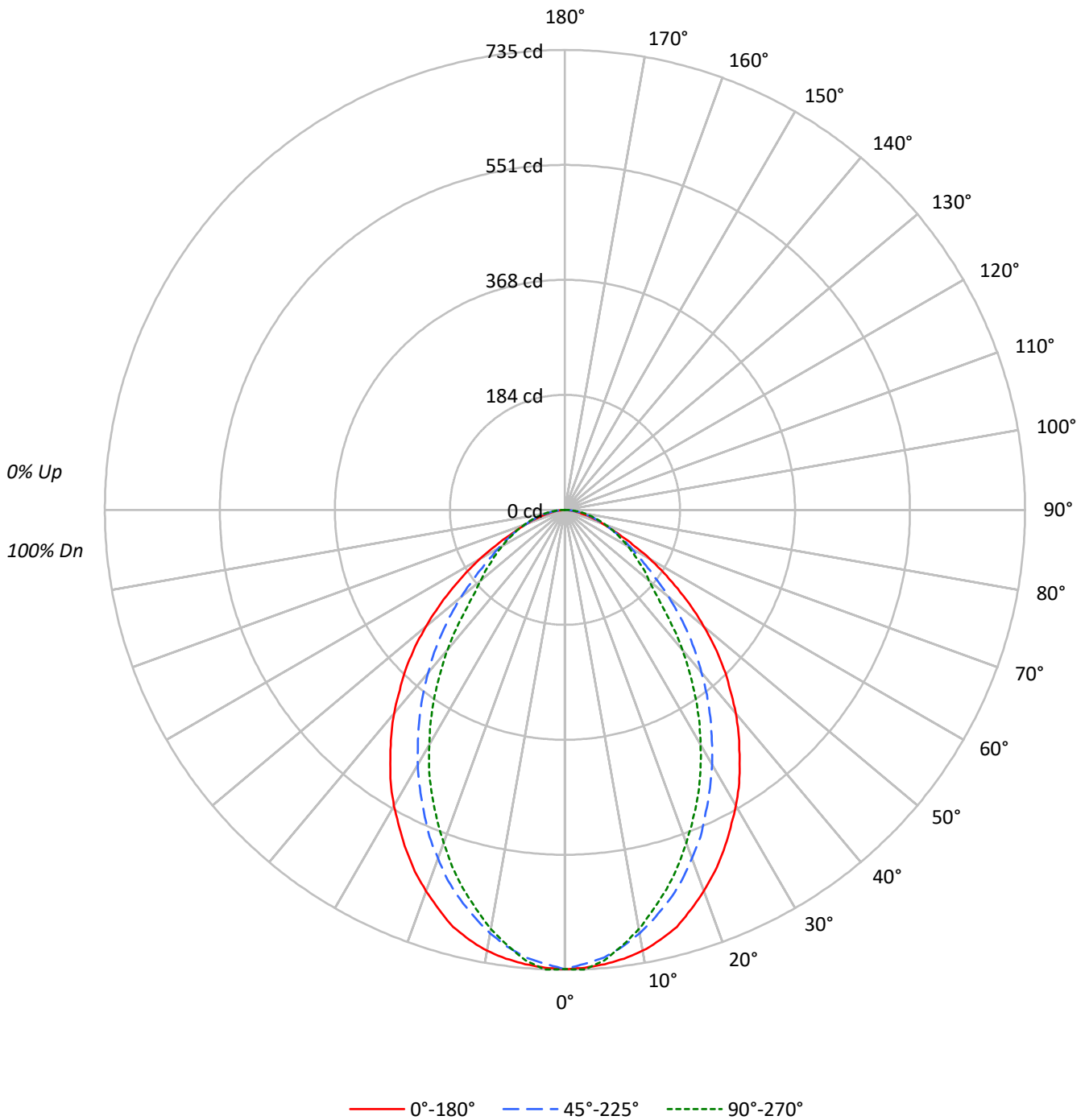
Lumens per Lamp: N/A
Luminaire Lumens: 1283.9 lumens
Efficiency: N/A
Efficacy: 54.6 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	88				
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76				
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66				
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58				
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52				
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47				
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42				
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38				
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35				
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8620	8620	8620
5°	8591	8466	8517
10°	8533	8195	8112
15°	8388	7841	7626
20°	8104	7409	7078
25°	7774	6904	6516
30°	7405	6377	5874
35°	6970	5806	5198
40°	6505	5207	4476
45°	5963	4600	3678
50°	5287	3950	3191
55°	4498	3306	2925
60°	3668	2879	2715
65°	2795	2551	2526
70°	2180	2273	2362
75°	1760	2042	2200
80°	1312	1670	2029
85°	714	1064	1778

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5963 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.1	5.3
10°-20°	183.3	14.3
20°-30°	249.2	19.4
30°-40°	258.4	20.1
40°-50°	217.9	17.0
50°-60°	154.7	12.0
60°-70°	94.5	7.4
70°-80°	47.0	3.7
80°-90°	10.7	0.8
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°	500.7	39.0
0°-40°	759.1	59.1
0°-60°	1131.7	88.1
0°-90°	1283.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1283.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	734	734	734	734	734	
5°	729	729	718	723	723	69
15°	690	677	645	634	627	194
25°	600	574	533	514	503	276
35°	486	449	405	377	363	304
45°	359	321	277	239	222	276
55°	220	197	162	147	143	197
65°	101	97	92	92	91	103
75°	39	42	45	47	48	42
85°	5	6	8	12	13	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	734.1	734.1	734.1	734.1	734.1
2.5°	732.3	733.2	726.1	734.1	735.0
5°	728.8	728.8	718.2	722.6	722.6
7.5°	723.5	721.7	704.1	704.1	702.3
10°	715.6	710.3	687.3	682.9	680.3
12.5°	704.1	695.3	667.0	659.1	653.8
15°	690.0	676.7	645.0	633.5	627.3
17.5°	669.7	656.4	621.1	605.3	598.2
20°	648.5	629.1	592.9	577.0	566.4
22.5°	625.6	600.9	565.6	546.1	534.7
25°	600.0	573.5	532.9	513.5	502.9
27.5°	572.6	543.5	502.0	480.0	469.4
30°	546.1	512.6	470.3	445.6	433.2
32.5°	517.9	480.0	436.7	411.2	398.8
35°	486.2	449.1	405.0	376.7	362.6
37.5°	456.2	418.2	372.3	342.3	326.5
40°	424.4	386.5	339.7	308.8	292.0
42.5°	390.9	354.7	308.8	272.6	256.8
45°	359.1	321.2	277.0	239.1	221.5
47.5°	324.7	289.4	246.2	207.3	195.0
50°	289.4	256.8	216.2	180.9	174.7
52.5°	255.0	227.6	186.2	163.2	160.6
55°	219.7	196.8	161.5	147.3	142.9
57.5°	187.0	170.3	138.5	131.5	129.7
60°	156.2	142.1	122.6	118.2	115.6
62.5°	126.2	118.2	106.8	105.0	103.2
65°	100.6	97.1	91.8	91.8	90.9
67.5°	79.4	79.4	78.5	80.3	79.4
70°	63.5	64.4	66.2	67.9	68.8
72.5°	50.3	52.9	54.7	57.4	58.2
75°	38.8	41.5	45.0	46.8	48.5
77.5°	28.2	30.9	34.4	37.1	38.8
80°	19.4	21.2	24.7	28.2	30.0
82.5°	12.4	13.2	15.9	19.4	21.2
85°	5.3	6.2	7.9	11.5	13.2
87.5°	0.0	0.0	0.9	3.5	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	16.29	17.74	16.66	18.06	18.37	14.39	15.84	14.76	16.15	16.47
	3H	17.19	18.49	17.57	18.81	19.18	15.96	17.26	16.34	17.59	17.95
	4H	17.47	18.68	17.87	19.03	19.41	16.56	17.77	16.96	18.12	18.50
	6H	17.62	18.74	18.03	19.11	19.50	17.01	18.13	17.42	18.49	18.89
	8H	17.65	18.71	18.07	19.10	19.50	17.16	18.22	17.59	18.61	19.01
	12H	17.64	18.66	18.07	19.04	19.47	17.26	18.27	17.69	18.66	19.09
4H	2H	16.54	17.75	16.94	18.10	18.48	14.93	16.15	15.33	16.49	16.87
	3H	17.65	18.65	18.06	19.05	19.45	16.71	17.71	17.12	18.11	18.51
	4H	18.04	18.94	18.47	19.36	19.80	17.42	18.32	17.85	18.73	19.17
	6H	18.28	19.06	18.74	19.50	19.97	17.99	18.77	18.45	19.21	19.67
	8H	18.33	19.05	18.79	19.50	19.97	18.18	18.91	18.65	19.35	19.82
	12H	18.33	18.98	18.82	19.46	19.93	18.32	18.97	18.80	19.45	19.92
8H	4H	18.20	18.93	18.66	19.37	19.84	17.63	18.35	18.09	18.80	19.27
	6H	18.51	19.11	19.01	19.60	20.08	18.30	18.90	18.80	19.39	19.87
	8H	18.59	19.12	19.10	19.64	20.13	18.56	19.10	19.08	19.61	20.10
	12H	18.62	19.10	19.13	19.59	20.16	18.77	19.24	19.28	19.74	20.30
12H	4H	18.20	18.85	18.69	19.33	19.80	17.62	18.27	18.11	18.75	19.22
	6H	18.53	19.06	19.04	19.57	20.06	18.31	18.85	18.83	19.36	19.85
	8H	18.64	19.11	19.15	19.61	20.17	18.61	19.09	19.13	19.58	20.15