

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: P1059559

Luminaire Tested: S123RDRP-H1165D940-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059559
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: S123RDRP-H1165D940-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: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

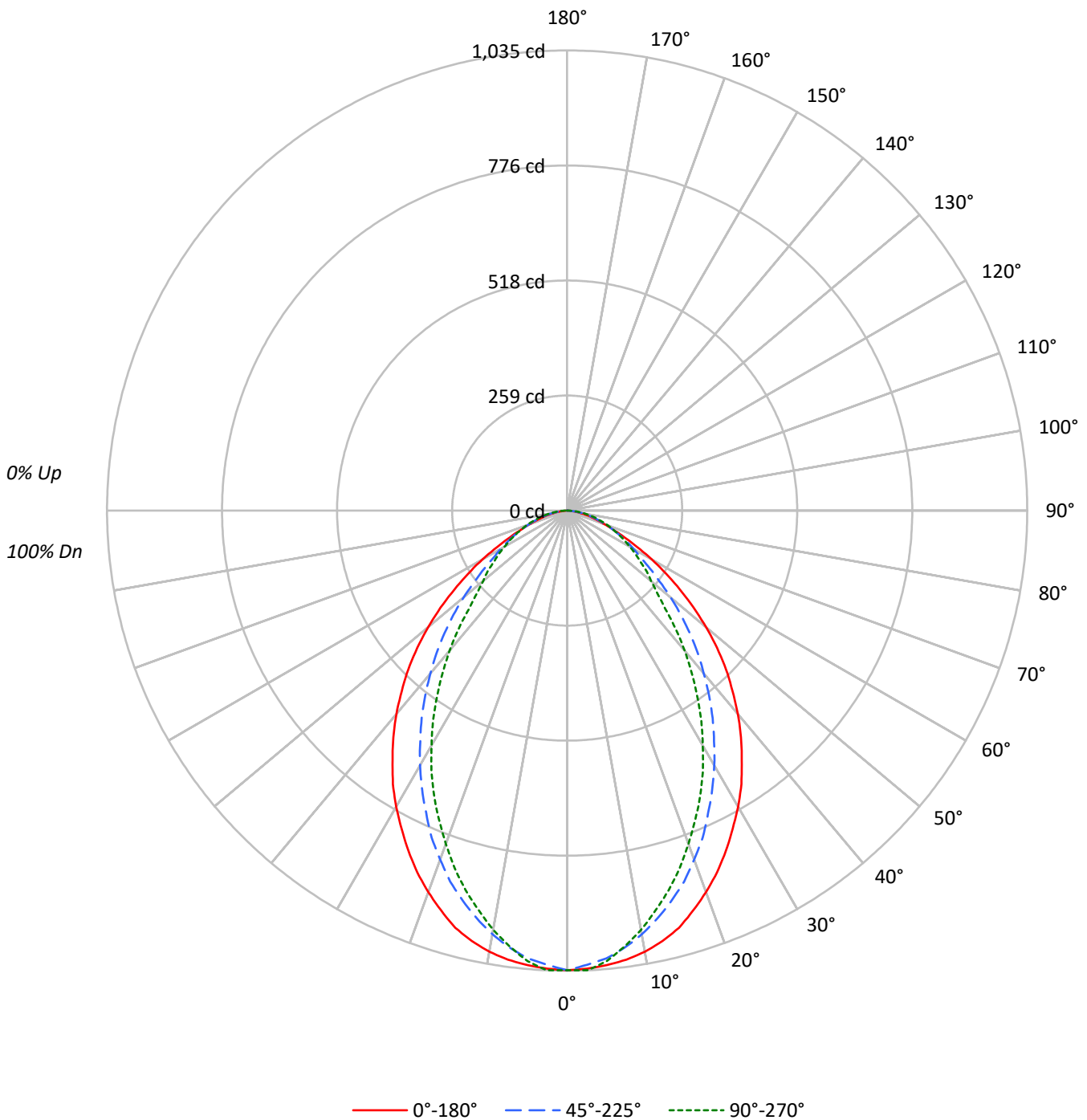
Lumens per Lamp: N/A
Luminaire Lumens: 1808.0 lumens
Efficiency: N/A
Efficacy: 49.5 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.5
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	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	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	88												88																
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76												76																
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66												66																
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58												58																
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52												52																
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47												47																
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42												42																
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38												38																
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35												35																
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32												32																

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12138	12138	12138
5°	12097	11920	11995
10°	12014	11541	11422
15°	11811	11041	10739
20°	11411	10433	9967
25°	10947	9722	9176
30°	10428	8979	8271
35°	9814	8175	7319
40°	9160	7332	6303
45°	8398	6478	5180
50°	7444	5561	4494
55°	6334	4655	4121
60°	5164	4056	3823
65°	3934	3590	3556
70°	3073	3200	3327
75°	2482	2876	3099
80°	1846	2353	2854
85°	1010	1509	2506

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8398 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.0	5.3
10°-20°	258.2	14.3
20°-30°	351.0	19.4
30°-40°	363.8	20.1
40°-50°	306.8	17.0
50°-60°	217.8	12.0
60°-70°	133.1	7.4
70°-80°	66.2	3.7
80°-90°	15.0	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°	705.1	39.0
0°-40°	1068.9	59.1
0°-60°	1593.6	88.1
0°-90°	1808.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1808.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1034	1034	1034	1034	1034	
5°	1026	1026	1011	1018	1018	97
15°	972	953	908	892	883	273
25°	845	808	750	723	708	388
35°	685	632	570	530	511	428
45°	506	452	390	337	312	388
55°	309	277	227	208	201	278
65°	142	137	129	129	128	145
75°	55	58	63	66	68	59
85°	8	9	11	16	19	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1033.7	1033.7	1033.7	1033.7	1033.7
2.5°	1031.2	1032.5	1022.5	1033.7	1035.0
5°	1026.3	1026.3	1011.3	1017.6	1017.6
7.5°	1018.8	1016.3	991.5	991.5	989.0
10°	1007.6	1000.2	967.9	961.6	957.9
12.5°	991.5	979.0	939.3	928.1	920.6
15°	971.6	953.0	908.2	892.1	883.4
17.5°	943.0	924.4	874.7	852.3	842.4
20°	913.2	885.9	834.9	812.6	797.6
22.5°	880.9	846.1	796.4	769.1	752.9
25°	844.9	807.6	750.4	723.1	708.2
27.5°	806.3	765.3	706.9	675.9	661.0
30°	769.1	721.9	662.2	627.4	610.0
32.5°	729.3	675.9	615.0	579.0	561.6
35°	684.6	632.4	570.3	530.5	510.6
37.5°	642.3	588.9	524.3	482.1	459.7
40°	597.6	544.2	478.3	434.9	411.2
42.5°	550.4	499.5	434.9	383.9	361.6
45°	505.7	452.2	390.1	336.7	311.9
47.5°	457.2	407.5	346.6	292.0	274.6
50°	407.5	361.6	304.4	254.7	246.0
52.5°	359.1	320.5	262.2	229.9	226.1
55°	309.4	277.1	227.4	207.5	201.3
57.5°	263.4	239.8	195.1	185.1	182.6
60°	219.9	200.0	172.7	166.5	162.8
62.5°	177.7	166.5	150.3	147.9	145.4
65°	141.6	136.7	129.2	129.2	128.0
67.5°	111.8	111.8	110.6	113.1	111.8
70°	89.5	90.7	93.2	95.7	96.9
72.5°	70.8	74.5	77.0	80.8	82.0
75°	54.7	58.4	63.4	65.8	68.3
77.5°	39.8	43.5	48.5	52.2	54.7
80°	27.3	29.8	34.8	39.8	42.2
82.5°	17.4	18.6	22.4	27.3	29.8
85°	7.5	8.7	11.2	16.2	18.6
87.5°	0.0	0.0	1.2	5.0	8.7
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	17.48	18.93	17.85	19.25	19.56	15.58	17.03	15.94	17.34	17.66
	3H	18.38	19.67	18.76	20.00	20.37	17.15	18.45	17.53	18.78	19.14
	4H	18.66	19.87	19.06	20.22	20.60	17.75	18.96	18.15	19.31	19.69
	6H	18.81	19.93	19.22	20.30	20.69	18.20	19.32	18.61	19.68	20.08
	8H	18.83	19.90	19.26	20.29	20.69	18.35	19.41	18.77	19.80	20.20
	12H	18.83	19.84	19.26	20.23	20.66	18.45	19.46	18.88	19.84	20.27
4H	2H	17.73	18.94	18.13	19.29	19.67	16.12	17.33	16.52	17.68	18.06
	3H	18.84	19.84	19.25	20.24	20.64	17.89	18.89	18.31	19.30	19.70
	4H	19.23	20.13	19.66	20.54	20.99	18.61	19.50	19.04	19.92	20.36
	6H	19.47	20.25	19.93	20.69	21.16	19.18	19.96	19.64	20.40	20.86
	8H	19.51	20.24	19.98	20.69	21.16	19.37	20.10	19.83	20.54	21.01
	12H	19.52	20.17	20.01	20.65	21.12	19.51	20.15	19.99	20.63	21.11
8H	4H	19.39	20.11	19.85	20.56	21.03	18.81	19.54	19.28	19.99	20.46
	6H	19.70	20.30	20.20	20.79	21.27	19.49	20.09	19.99	20.58	21.06
	8H	19.78	20.31	20.29	20.82	21.31	19.75	20.29	20.27	20.80	21.29
	12H	19.81	20.29	20.32	20.78	21.35	19.96	20.43	20.47	20.92	21.49
12H	4H	19.39	20.04	19.88	20.52	20.99	18.81	19.46	19.30	19.94	20.41
	6H	19.71	20.25	20.23	20.76	21.25	19.50	20.04	20.02	20.55	21.04
	8H	19.83	20.30	20.34	20.80	21.36	19.80	20.28	20.31	20.77	21.34