

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: P1059105

Luminaire Tested: S123RDRP-S1165D840-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059105
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-66)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S1165D840-X4F0-XX-UDD-BVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

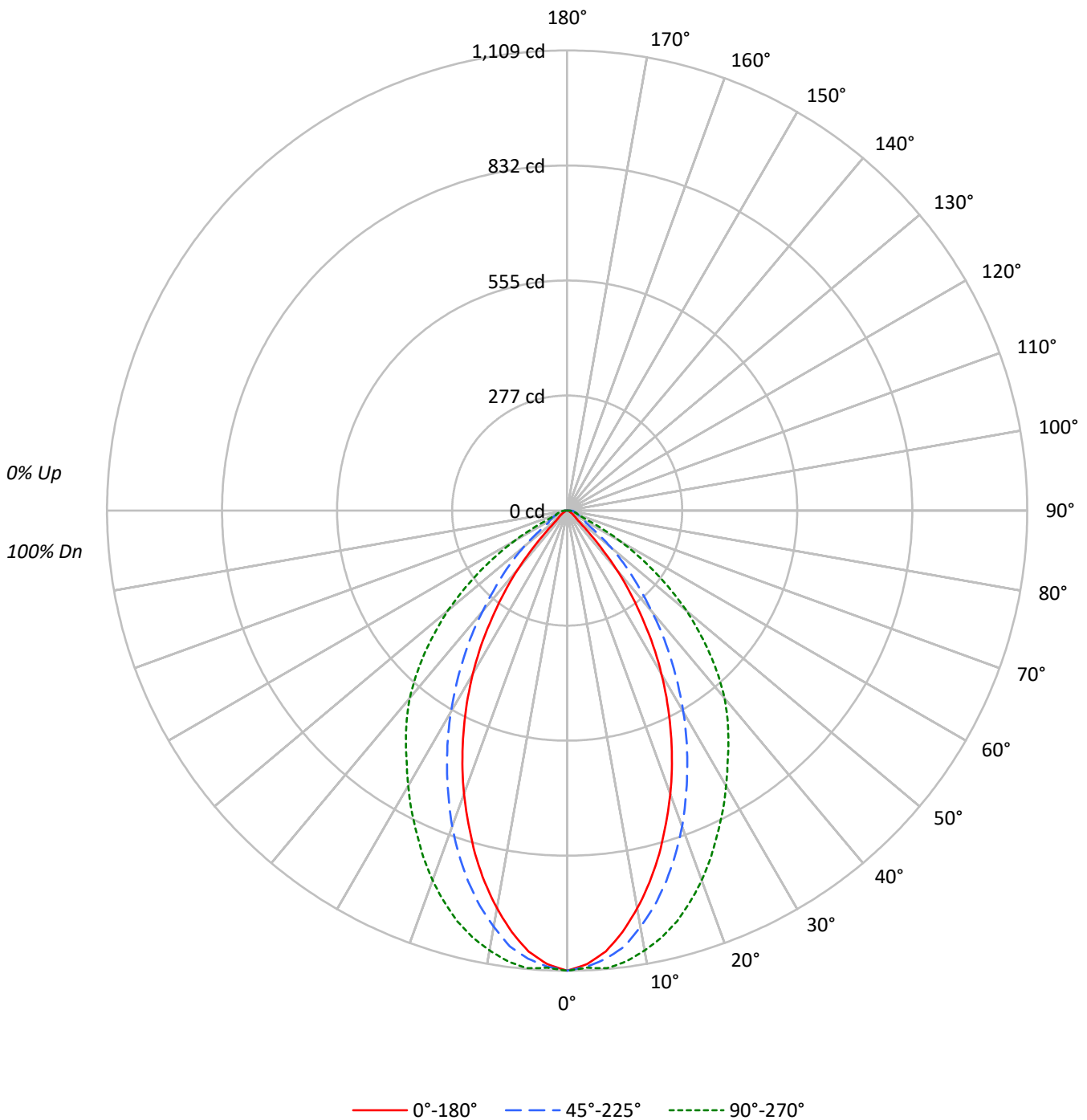
Lumens per Lamp: N/A
Luminaire Lumens: 1331.1 lumens
Efficiency: N/A
Efficacy: 31.8 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	99	94	90	102	97	92	88	94	90	87	91	87	85	88	85	83	81
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73
4	92	83	76	71	90	81	75	70	79	74	70	77	72	69	75	71	68	66
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55
7	76	65	58	53	75	65	58	53	63	57	53	62	56	52	61	56	52	50
8	72	61	54	49	70	60	53	49	59	53	49	58	52	48	57	52	48	47
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	42	40

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13019	13019	13019
5°	12570	12776	13051
10°	11604	12142	12837
15°	10413	11228	12451
20°	9085	10122	11851
25°	7664	8871	11118
30°	6163	7585	10390
35°	4511	6244	9710
40°	2814	4868	9044
45°	1064	3628	8056
50°	506	2501	6867
55°	387	1372	5308
60°	275	1163	3490
65°	203	1011	1456
70°	199	951	951
75°	263	994	994
80°	392	1183	1082
85°	781	1967	1576

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8056 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.8	7.6
10°-20°	261.0	19.6
20°-30°	323.0	24.3
30°-40°	289.6	21.8
40°-50°	189.9	14.3
50°-60°	95.0	7.1
60°-70°	37.0	2.8
70°-80°	20.9	1.6
80°-90°	12.9	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°	685.8	51.5
0°-40°	975.4	73.3
0°-60°	1260.3	94.7
0°-90°	1331.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1331.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1109	1109	1109	1109	1109	
5°	1066	1084	1084	1096	1107	99
15°	857	892	924	985	1024	238
25°	592	628	685	782	858	270
35°	315	357	436	567	677	196
45°	64	103	218	374	485	61
55°	19	23	67	184	259	17
65°	7	22	36	48	52	8
75°	6	22	22	22	22	6
85°	6	15	15	15	12	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1108.7	1108.7	1108.7	1108.7	1108.7
2.5°	1094.1	1110.1	1099.9	1101.4	1102.8
5°	1066.4	1083.9	1083.9	1095.6	1107.2
7.5°	1024.2	1044.6	1059.1	1079.5	1095.6
10°	973.2	997.9	1018.3	1054.8	1076.6
12.5°	917.8	948.4	974.6	1022.7	1053.3
15°	856.6	891.6	923.6	984.8	1024.2
17.5°	791.1	826.0	868.3	939.7	987.7
20°	727.0	761.9	810.0	890.1	948.4
22.5°	660.0	696.4	747.4	836.2	904.7
25°	591.5	627.9	684.7	782.3	858.1
27.5°	523.0	559.4	623.5	729.9	812.9
30°	454.5	491.0	559.4	673.1	766.3
32.5°	386.1	425.4	496.8	620.6	719.7
35°	314.7	356.9	435.6	566.7	677.4
37.5°	249.1	288.5	377.3	520.1	635.2
40°	183.6	225.8	317.6	474.9	590.0
42.5°	119.5	164.6	263.7	425.4	539.0
45°	64.1	103.4	218.5	374.4	485.1
47.5°	35.0	56.8	176.3	320.5	429.8
50°	27.7	32.1	136.9	273.9	375.9
52.5°	23.3	26.2	97.6	230.2	316.1
55°	18.9	23.3	67.0	183.6	259.3
57.5°	16.0	20.4	52.4	142.8	202.5
60°	11.7	17.5	49.5	104.9	148.6
62.5°	8.7	18.9	43.7	72.8	97.6
65°	7.3	21.9	36.4	48.1	52.4
67.5°	5.8	23.3	32.1	30.6	30.6
70°	5.8	21.9	27.7	26.2	27.7
72.5°	5.8	23.3	24.8	23.3	24.8
75°	5.8	21.9	21.9	21.9	21.9
77.5°	5.8	20.4	20.4	18.9	18.9
80°	5.8	17.5	17.5	17.5	16.0
82.5°	5.8	16.0	16.0	16.0	13.1
85°	5.8	14.6	14.6	14.6	11.7
87.5°	4.4	13.1	14.6	13.1	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	1.27	2.53	1.64	2.84	3.16	15.52	16.78	15.89	17.09	17.41
	3H	3.60	4.71	3.98	5.05	5.41	15.60	16.71	15.98	17.04	17.41
	4H	4.71	5.74	5.11	6.09	6.48	15.68	16.71	16.08	17.07	17.45
	6H	5.69	6.64	6.11	7.01	7.41	15.78	16.73	16.20	17.10	17.50
	8H	6.17	7.07	6.60	7.46	7.87	15.84	16.74	16.27	17.13	17.54
	12H	6.73	7.59	7.16	7.97	8.40	15.92	16.78	16.36	17.16	17.59
4H	2H	4.52	5.55	4.92	5.91	6.29	15.38	16.41	15.78	16.76	17.15
	3H	6.84	7.69	7.26	8.09	8.50	15.55	16.40	15.97	16.80	17.21
	4H	8.21	8.97	8.65	9.39	9.83	15.70	16.46	16.14	16.88	17.32
	6H	9.30	9.95	9.76	10.40	10.87	15.93	16.58	16.39	17.03	17.50
	8H	9.75	10.36	10.22	10.81	11.28	16.05	16.66	16.52	17.11	17.58
	12H	10.25	10.78	10.73	11.27	11.74	16.23	16.77	16.71	17.25	17.72
8H	4H	9.19	9.80	9.66	10.25	10.72	15.70	16.31	16.17	16.76	17.23
	6H	10.71	11.21	11.21	11.71	12.19	16.04	16.54	16.54	17.03	17.52
	8H	11.48	11.93	12.00	12.45	12.94	16.27	16.72	16.79	17.24	17.73
	12H	12.28	12.68	12.80	13.18	13.75	16.61	17.00	17.12	17.50	18.07
12H	4H	9.37	9.90	9.85	10.39	10.86	15.69	16.22	16.17	16.71	17.18
	6H	11.02	11.47	11.55	11.99	12.48	16.06	16.51	16.58	17.02	17.52
	8H	11.98	12.37	12.49	12.87	13.44	16.37	16.76	16.88	17.26	17.83