

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: P1059105

Luminaire Tested: S123RDR-S1165D840-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
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: S123RDR-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

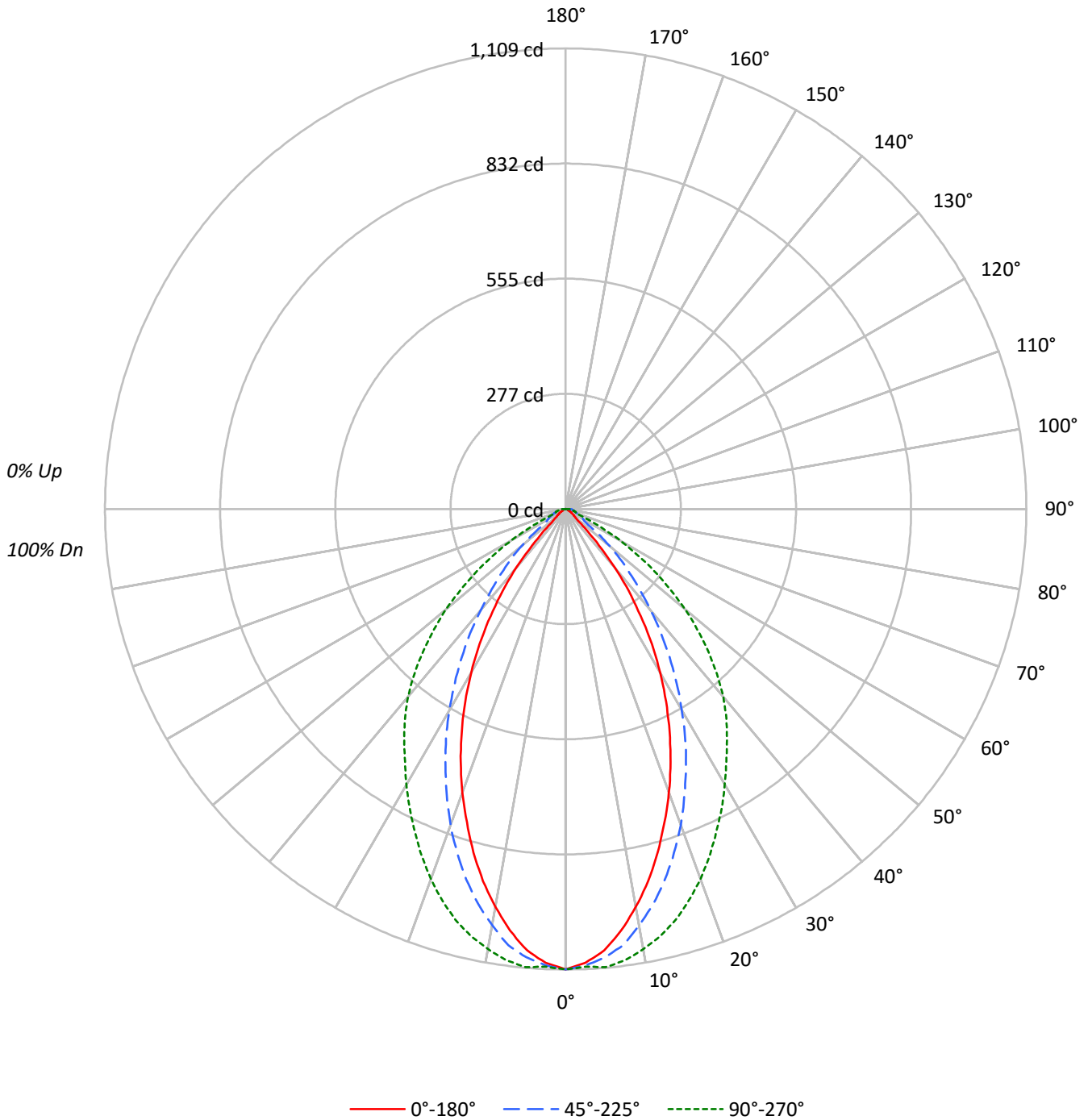
Lumens per Lamp: N/A
Luminaire Lumens: 1331.1 lumens
Efficiency: N/A
Efficacy: 31.8 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
Input Voltage (V): 120
Input Current (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	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

(END OF REPORT)