

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: P1059118

Luminaire Tested: S123RDR-S1165D850-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059118
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-S1165D850-X4F0-XX-UDD-WVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

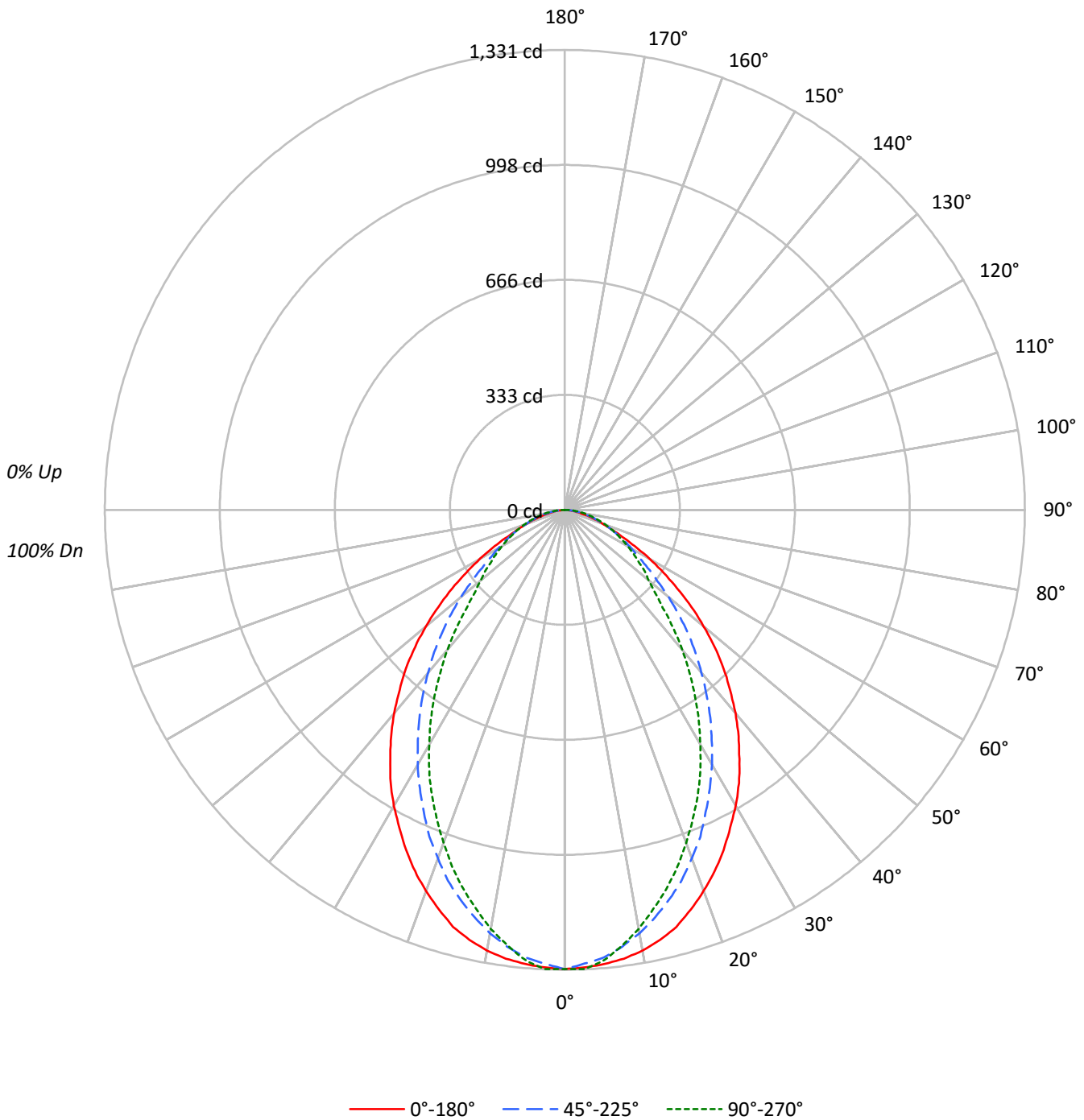
Lumens per Lamp: N/A
Luminaire Lumens: 2324.5 lumens
Efficiency: N/A
Efficacy: 55.6 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	15606	15606	15606
5°	15552	15327	15421
10°	15447	14838	14685
15°	15186	14195	13806
20°	14672	13413	12815
25°	14073	12500	11797
30°	13407	11544	10634
35°	12618	10510	9411
40°	11777	9427	8104
45°	10796	8330	6657
50°	9571	7150	5778
55°	8142	5984	5298
60°	6639	5214	4915
65°	5060	4615	4571
70°	3948	4113	4278
75°	3189	3698	3988
80°	2374	3023	3672
85°	1293	1940	3234

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10796 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.4	5.3
10°-20°	331.9	14.3
20°-30°	451.2	19.4
30°-40°	467.8	20.1
40°-50°	394.5	17.0
50°-60°	280.0	12.0
60°-70°	171.2	7.4
70°-80°	85.2	3.7
80°-90°	19.3	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°	906.5	39.0
0°-40°	1374.3	59.1
0°-60°	2048.8	88.1
0°-90°	2324.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2324.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1329	1329	1329	1329	1329	
5°	1319	1319	1300	1308	1308	125
15°	1249	1225	1168	1147	1136	351
25°	1086	1038	965	930	910	499
35°	880	813	733	682	656	550
45°	650	581	502	433	401	499
55°	398	356	292	267	259	357
65°	182	176	166	166	164	186
75°	70	75	82	85	88	76
85°	10	11	14	21	24	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1329.0	1329.0	1329.0	1329.0	1329.0
2.5°	1325.8	1327.4	1314.6	1329.0	1330.6
5°	1319.4	1319.4	1300.3	1308.3	1308.3
7.5°	1309.9	1306.7	1274.7	1274.7	1271.5
10°	1295.5	1285.9	1244.4	1236.4	1231.6
12.5°	1274.7	1258.7	1207.6	1193.2	1183.7
15°	1249.2	1225.2	1167.7	1146.9	1135.7
17.5°	1212.4	1188.5	1124.6	1095.8	1083.0
20°	1174.1	1138.9	1073.4	1044.7	1025.5
22.5°	1132.5	1087.8	1023.9	988.8	968.0
25°	1086.2	1038.3	964.8	929.7	910.5
27.5°	1036.7	984.0	908.9	869.0	849.8
30°	988.8	928.1	851.4	806.7	784.3
32.5°	937.7	869.0	790.7	744.4	722.0
35°	880.2	813.1	733.2	682.1	656.5
37.5°	825.8	757.2	674.1	619.8	591.0
40°	768.3	699.7	615.0	559.1	528.7
42.5°	707.6	642.1	559.1	493.6	464.8
45°	650.1	581.4	501.6	432.9	400.9
47.5°	587.8	523.9	445.7	375.4	353.0
50°	523.9	464.8	391.4	327.5	316.3
52.5°	461.6	412.1	337.0	295.5	290.7
55°	397.7	356.2	292.3	266.8	258.8
57.5°	338.6	308.3	250.8	238.0	234.8
60°	282.7	257.2	222.0	214.0	209.3
62.5°	228.4	214.0	193.3	190.1	186.9
65°	182.1	175.7	166.1	166.1	164.5
67.5°	143.8	143.8	142.2	145.4	143.8
70°	115.0	116.6	119.8	123.0	124.6
72.5°	91.1	95.8	99.0	103.8	105.4
75°	70.3	75.1	81.5	84.7	87.9
77.5°	51.1	55.9	62.3	67.1	70.3
80°	35.1	38.3	44.7	51.1	54.3
82.5°	22.4	24.0	28.8	35.1	38.3
85°	9.6	11.2	14.4	20.8	24.0
87.5°	0.0	0.0	1.6	6.4	11.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)