

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: P1059111

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059111
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-64)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S1165D840-X4F0-XX-UDD-WVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

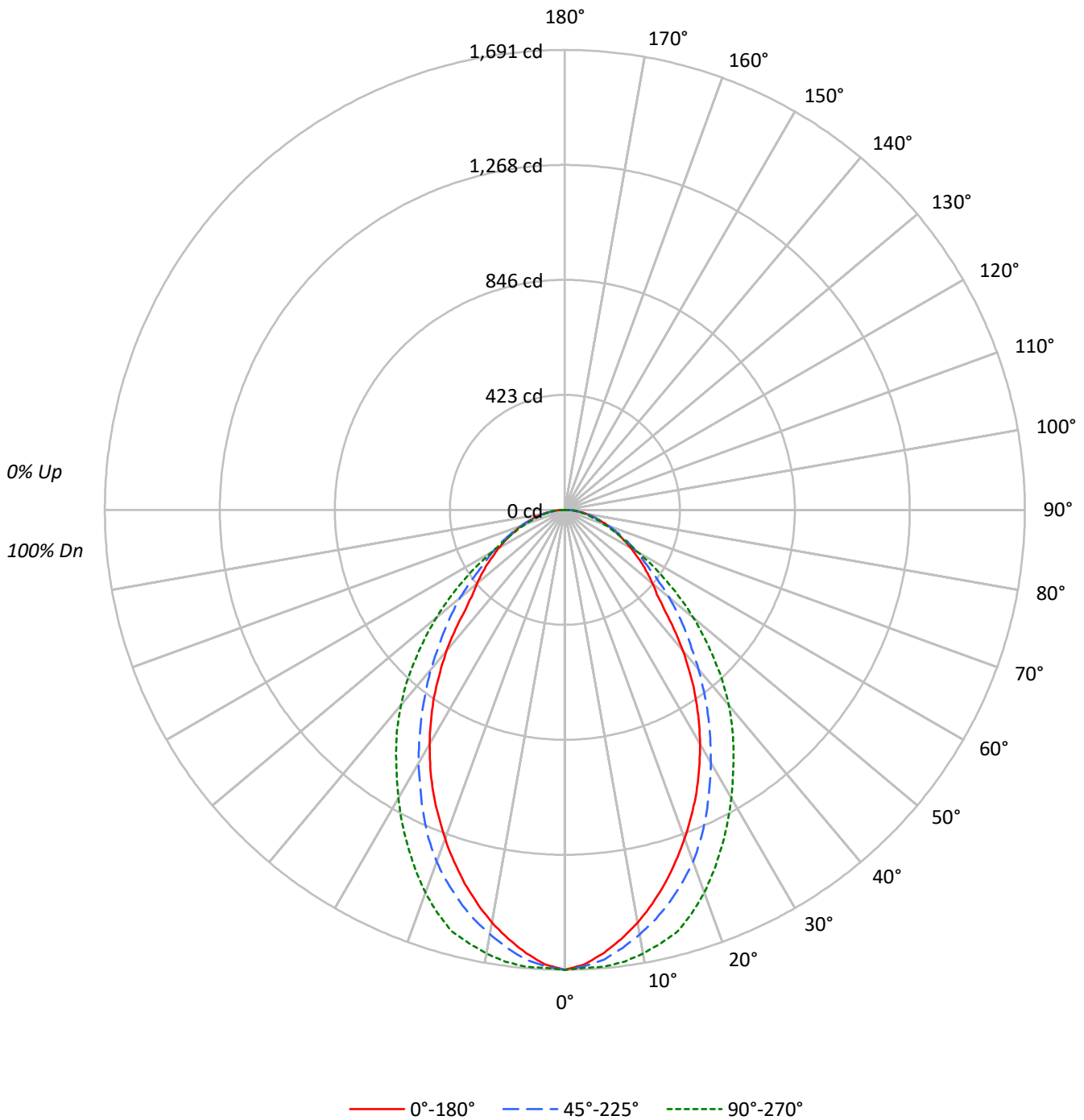
Lumens per Lamp: N/A
Luminaire Lumens: 2972.1 lumens
Efficiency: N/A
Efficacy: 71.1 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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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CATALOG NUMBER: S123RDR-S1165D840-X4F0-XX-UDD-WVL-W

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	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34
10	58	46	39	34	57	45	38	34	45	38	34	44	38	33	43	37	33	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19861	19861	19861
5°	19285	19560	19869
10°	18380	18900	19751
15°	17288	18138	19501
20°	16079	17207	18717
25°	14841	15954	17689
30°	13480	14565	16598
35°	11998	13145	15503
40°	10353	11714	14369
45°	8557	10369	12883
50°	7685	9147	11248
55°	7122	7808	9327
60°	6564	7111	7144
65°	6107	6429	5985
70°	5747	5847	5246
75°	5417	5217	4623
80°	5119	4727	4328
85°	4904	5295	4904

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 12883 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	156.7	5.3
10°-20°	422.0	14.2
20°-30°	570.9	19.2
30°-40°	586.7	19.7
40°-50°	492.7	16.6
50°-60°	353.3	11.9
60°-70°	224.9	7.6
70°-80°	123.6	4.2
80°-90°	41.2	1.4
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°	1149.6	38.7
0°-40°	1736.4	58.4
0°-60°	2582.4	86.9
0°-90°	2972.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2972.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1691	1691	1691	1691	1691	
5°	1636	1665	1659	1671	1686	153
15°	1422	1461	1492	1556	1604	398
25°	1146	1189	1231	1298	1365	525
35°	837	882	917	998	1082	521
45°	515	560	624	715	776	407
55°	348	355	381	432	456	311
65°	220	233	231	218	215	219
75°	119	131	115	106	102	127
85°	36	38	39	41	36	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1691.4	1691.4	1691.4	1691.4	1691.4
2.5°	1672.5	1695.8	1679.7	1681.2	1685.6
5°	1636.1	1665.2	1659.4	1671.0	1685.6
7.5°	1591.0	1623.0	1624.4	1652.1	1675.4
10°	1541.5	1574.9	1585.1	1627.3	1656.5
12.5°	1483.2	1519.6	1541.5	1593.9	1631.7
15°	1422.1	1461.4	1492.0	1556.0	1604.1
17.5°	1355.1	1397.4	1436.7	1505.1	1554.6
20°	1286.7	1331.9	1377.0	1441.0	1497.8
22.5°	1215.4	1262.0	1308.6	1371.2	1433.7
25°	1145.5	1189.2	1231.4	1298.4	1365.3
27.5°	1069.9	1115.0	1151.4	1225.6	1295.5
30°	994.2	1039.3	1074.2	1151.4	1224.1
32.5°	915.6	962.1	994.2	1074.2	1149.9
35°	837.0	882.1	917.0	998.5	1081.5
37.5°	754.0	803.5	838.4	930.1	1011.6
40°	675.4	722.0	764.2	860.2	937.4
42.5°	593.9	641.9	689.9	788.9	860.2
45°	515.3	560.4	624.4	714.7	775.8
47.5°	458.5	487.6	561.9	637.5	695.8
50°	420.7	432.3	500.7	567.7	615.7
52.5°	382.8	391.6	438.1	499.3	535.7
55°	347.9	355.2	381.4	432.3	455.6
57.5°	310.0	317.3	339.2	368.3	381.4
60°	279.5	285.3	302.8	307.1	304.2
62.5°	248.9	257.6	266.4	256.2	251.8
65°	219.8	232.9	231.4	218.3	215.4
67.5°	193.6	206.7	199.4	186.3	181.9
70°	167.4	180.5	170.3	157.2	152.8
72.5°	142.6	157.2	141.2	129.5	126.6
75°	119.4	131.0	115.0	106.3	101.9
77.5°	97.5	106.3	91.7	84.4	81.5
80°	75.7	81.5	69.9	65.5	64.0
82.5°	55.3	58.2	50.9	53.9	52.4
85°	36.4	37.8	39.3	40.8	36.4
87.5°	17.5	24.7	24.7	23.3	18.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)