

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: P994948

Luminaire Tested: S123RDR-B1165DB2750-4F0-XX-W2A-F_3500K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P994948
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-25)
Test Lab: INNOVATION CENTER
Issue Date: 5/2/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-B1165DB2750-4F0-XX-W2A-F_3500K
Description: Define 3 Regressed Direct Recessed with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

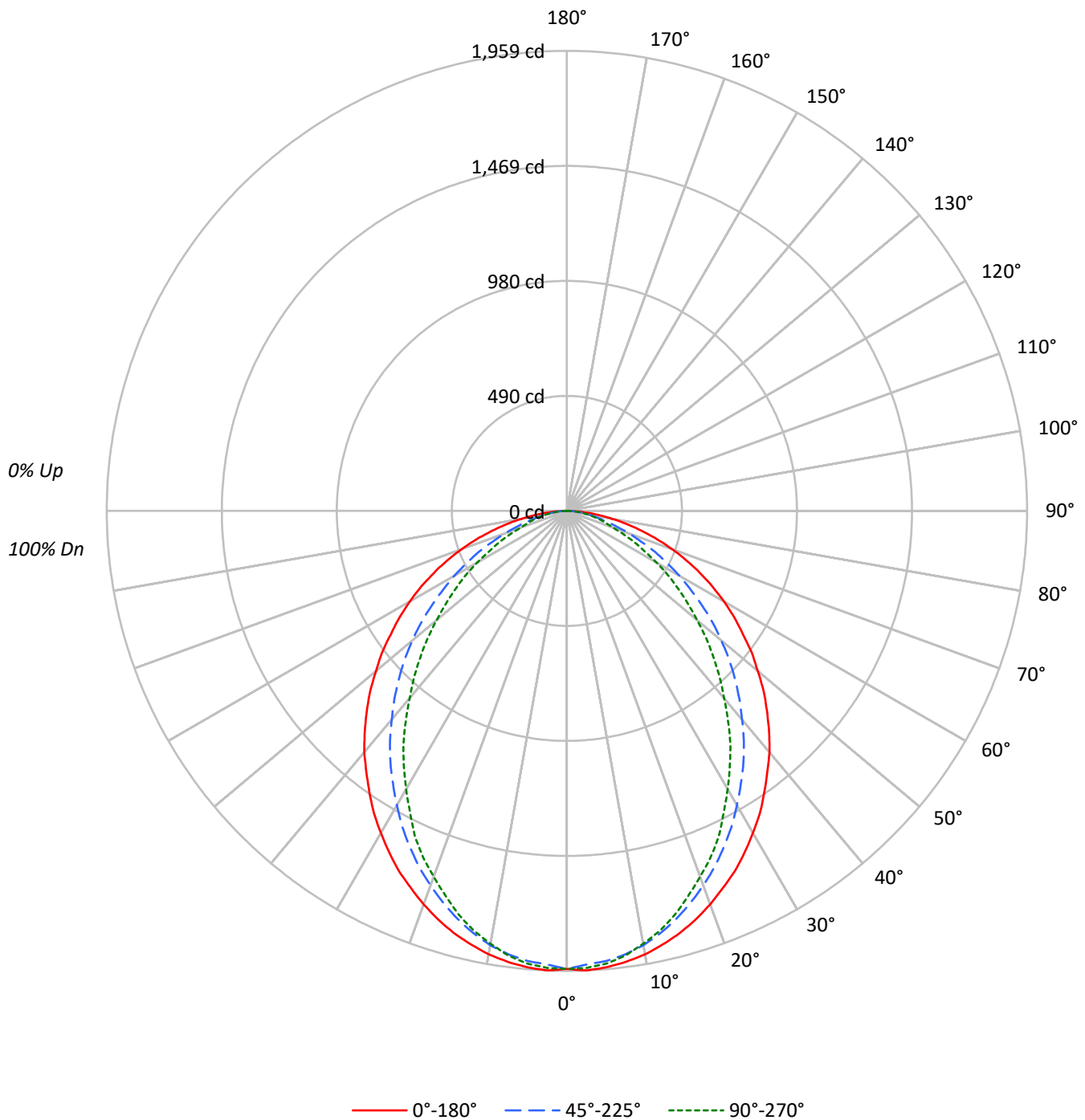
Lumens per Lamp: N/A
Luminaire Lumens: 4407.0 lumens
Efficiency: N/A
Efficacy: 71.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.07 / 1.22
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 61.3
Input Voltage (V):
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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	110	105	101	98	107	103	99	96	99	96	93	95	93	90	91	89	88	86		
2	100	93	86	81	98	91	85	80	87	83	78	84	80	77	81	78	75	73		
3	92	82	75	68	90	81	74	68	78	72	67	75	70	66	73	68	64	62		
4	85	73	65	59	83	72	64	58	70	63	58	67	62	57	65	60	56	54		
5	78	66	57	51	76	65	57	51	63	56	50	61	55	50	59	54	49	47		
6	73	60	51	45	71	59	51	45	57	50	45	55	49	44	54	48	44	42		
7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	44	39	37		
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34		
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30		
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	34	29	28		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	20997	20997	20997
5°	21077	20787	20907
10°	20958	20525	20457
15°	20733	20045	19833
20°	20424	19446	18992
25°	20105	18771	18170
30°	19684	17992	17009
35°	19251	17214	15946
40°	18851	16295	14627
45°	18328	15390	13438
50°	17750	14359	12107
55°	17160	13181	10866
60°	16622	11920	9502
65°	15916	10557	8140
70°	15037	8862	6571
75°	13753	6974	6184
80°	12261	6180	5690
85°	10362	5471	5076

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 18328 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	183.4	4.2
10°-20°	510.1	11.6
20°-30°	734.5	16.7
30°-40°	827.2	18.8
40°-50°	791.2	18.0
50°-60°	647.7	14.7
60°-70°	436.7	9.9
70°-80°	219.0	5.0
80°-90°	57.3	1.3
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°	1428.0	32.4
0°-40°	2255.2	51.2
0°-60°	3694.0	83.8
0°-90°	4407.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4407.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1951	1951	1951	1951	1951	
5°	1951	1943	1924	1938	1935	185
15°	1860	1843	1799	1791	1780	524
25°	1693	1653	1580	1547	1530	779
35°	1465	1408	1310	1242	1214	917
45°	1204	1133	1011	921	883	929
55°	914	837	702	611	579	820
65°	625	538	414	337	320	618
75°	331	255	168	152	149	352
85°	84	49	44	41	41	97
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1950.7	1950.7	1950.7	1950.7	1950.7
2.5°	1958.6	1952.3	1933.3	1950.7	1947.5
5°	1950.7	1942.8	1923.8	1938.1	1934.9
7.5°	1936.5	1928.6	1904.8	1914.3	1909.6
10°	1917.5	1906.4	1877.9	1879.5	1871.6
12.5°	1890.6	1877.9	1841.5	1840.0	1830.5
15°	1860.5	1843.1	1798.8	1790.9	1779.8
17.5°	1824.1	1805.2	1749.8	1734.0	1718.1
20°	1783.0	1757.7	1697.6	1677.0	1658.0
22.5°	1737.1	1707.1	1642.2	1615.3	1597.9
25°	1692.8	1653.3	1580.5	1547.3	1529.9
27.5°	1639.0	1596.3	1517.2	1472.9	1446.0
30°	1583.7	1536.2	1447.6	1393.8	1368.5
32.5°	1528.3	1472.9	1378.0	1317.9	1291.0
35°	1465.0	1408.1	1310.0	1241.9	1213.5
37.5°	1401.7	1340.0	1237.2	1161.2	1126.4
40°	1341.6	1272.0	1159.7	1077.4	1041.0
42.5°	1273.6	1204.0	1086.9	995.1	963.5
45°	1204.0	1132.8	1011.0	920.8	882.8
47.5°	1135.9	1056.8	936.6	838.5	805.3
50°	1060.0	985.6	857.5	759.4	723.0
52.5°	992.0	909.7	783.1	680.3	648.7
55°	914.4	836.9	702.4	610.7	579.0
57.5°	844.8	761.0	624.9	537.9	511.0
60°	772.1	685.0	553.7	468.3	441.4
62.5°	699.3	612.3	481.0	401.8	373.4
65°	624.9	537.9	414.5	337.0	319.6
67.5°	550.6	462.0	341.7	283.2	264.2
70°	477.8	392.4	281.6	226.2	208.8
72.5°	405.0	321.2	223.1	180.4	175.6
75°	330.7	254.7	167.7	151.9	148.7
77.5°	262.6	193.0	131.3	121.8	118.7
80°	197.8	132.9	99.7	94.9	91.8
82.5°	136.1	82.3	71.2	66.4	66.4
85°	83.9	49.0	44.3	41.1	41.1
87.5°	38.0	20.6	20.6	19.0	17.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)