

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: P243472

Luminaire Tested: S124DRP-H1195D840-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243472
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-84)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DRP-H1195D840-X4F0-XX-UDD-F-W
Description: DEFINE 4 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

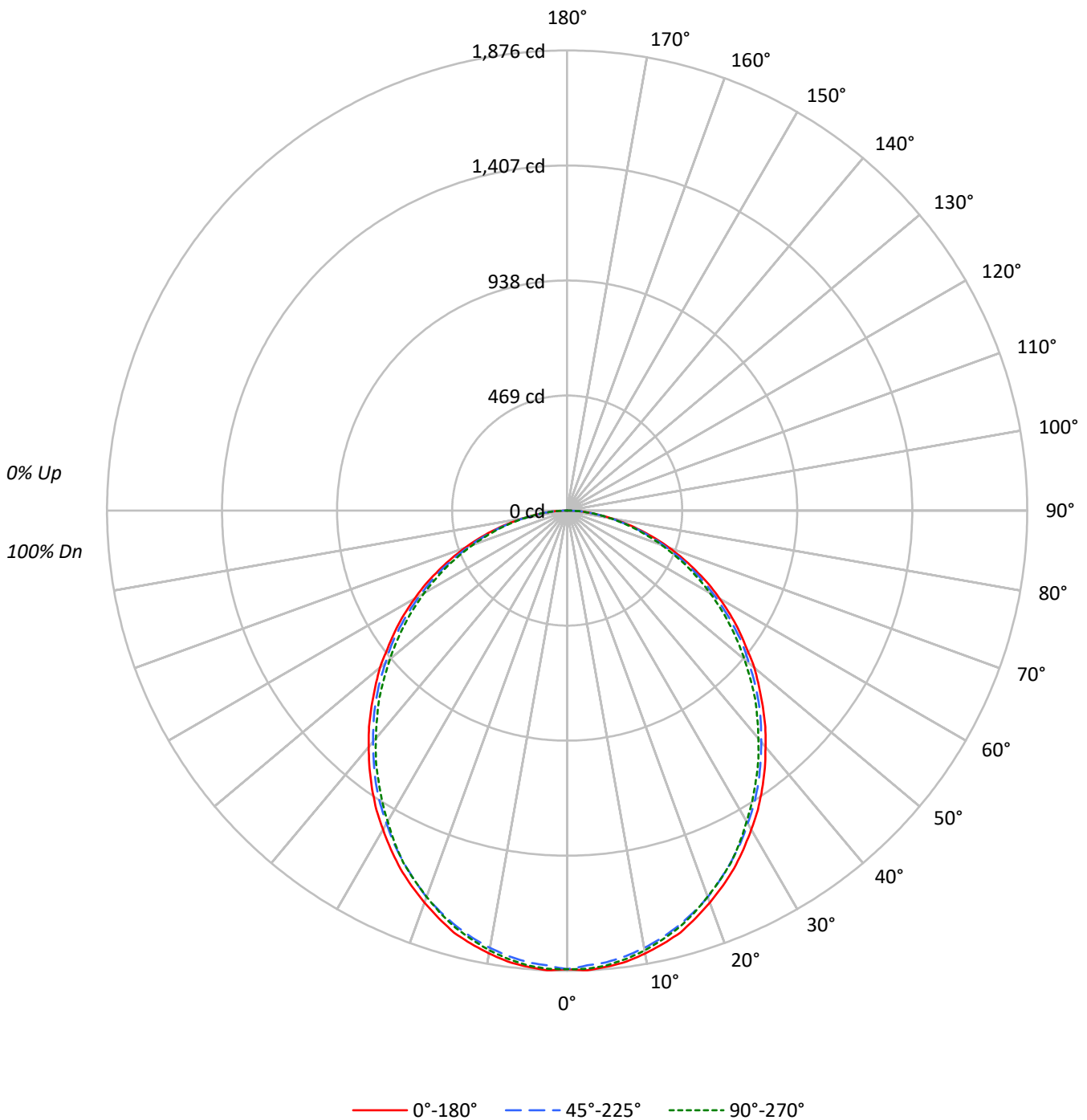
Lumens per Lamp: N/A
Luminaire Lumens: 4813.5 lumens
Efficiency: N/A
Efficacy: 127.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 37.7
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

TEST NUMBER: P243472

CATALOG NUMBER: S124DRP-H1195D840-X4F0-XX-UDD-F-W

Luminous Intensity Polar Plot



TEST NUMBER: P243472

CATALOG NUMBER: S124DRP-H1195D840-X4F0-XX-UDD-F-W

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	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51
5	77	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	47	44
6	71	58	49	42	69	57	48	42	55	47	42	53	46	41	52	46	41	39
7	66	52	44	38	64	51	43	37	50	43	37	48	42	37	47	41	37	35
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	52	40	33	27	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16620	16620	16620
5°	16656	16494	16603
10°	16547	16342	16437
15°	16395	16128	16199
20°	16089	15860	15845
25°	15787	15503	15518
30°	15412	15116	15022
35°	15040	14743	14561
40°	14600	14282	14071
45°	14172	13884	13617
50°	13780	13381	13045
55°	13273	12920	12520
60°	12766	12334	11956
65°	12159	11745	11360
70°	11506	10991	10637
75°	10605	10190	9874
80°	9347	9188	8958
85°	8220	8220	8067

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 14172 cd/sqm



TEST NUMBER: P243472

CATALOG NUMBER: S124DRP-H1195D840-X4F0-XX-UDD-F-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	176.3	3.7
10°-20°	497.0	10.3
20°-30°	732.0	15.2
30°-40°	851.6	17.7
40°-50°	852.0	17.7
50°-60°	745.1	15.5
60°-70°	553.4	11.5
70°-80°	315.3	6.6
80°-90°	90.8	1.9
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°	1405.3	29.2
0°-40°	2256.9	46.9
0°-60°	3853.9	80.1
0°-90°	4813.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4813.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1870	1870	1870	1870	1870	
5°	1867	1864	1848	1862	1861	177
15°	1782	1772	1753	1763	1760	501
25°	1610	1602	1581	1585	1582	741
35°	1386	1374	1359	1346	1342	866
45°	1127	1123	1104	1088	1083	871
55°	856	850	834	816	808	766
65°	578	574	558	546	540	574
75°	309	303	297	291	288	328
85°	81	79	81	78	79	92
90°	0	0	0	0	0	



TEST NUMBER: P243472

CATALOG NUMBER: S124DRP-H1195D840-X4F0-XX-UDD-F-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1869.8	1869.8	1869.8	1869.8	1869.8
2.5°	1875.9	1871.3	1856.1	1871.3	1869.8
5°	1866.7	1863.7	1848.5	1862.2	1860.7
7.5°	1854.6	1848.5	1831.8	1845.4	1843.9
10°	1833.3	1828.7	1810.5	1824.2	1821.1
12.5°	1808.9	1804.4	1784.6	1795.2	1792.2
15°	1781.6	1772.4	1752.6	1763.3	1760.3
17.5°	1742.0	1735.9	1716.1	1725.3	1720.7
20°	1700.9	1693.3	1676.6	1678.1	1675.1
22.5°	1656.8	1649.2	1629.4	1635.5	1629.4
25°	1609.6	1602.0	1580.7	1585.3	1582.2
27.5°	1556.4	1548.8	1529.0	1530.5	1524.4
30°	1501.6	1492.5	1472.7	1471.2	1463.6
32.5°	1446.8	1437.7	1417.9	1411.9	1404.2
35°	1386.0	1373.8	1358.6	1346.4	1341.9
37.5°	1323.6	1317.5	1294.7	1287.1	1281.0
40°	1258.2	1252.1	1230.8	1220.2	1212.6
42.5°	1195.8	1188.2	1168.4	1153.2	1147.1
45°	1127.4	1122.8	1104.5	1087.8	1083.2
47.5°	1060.4	1058.9	1036.1	1019.3	1011.7
50°	996.5	987.4	967.6	952.4	943.3
52.5°	922.0	920.4	903.7	883.9	876.3
55°	856.5	850.5	833.7	815.5	807.9
57.5°	788.1	785.0	763.7	748.5	740.9
60°	718.1	712.0	693.8	680.1	672.5
62.5°	651.2	643.5	626.8	613.1	605.5
65°	578.1	573.6	558.4	546.2	540.1
67.5°	509.7	503.6	488.4	477.7	471.6
70°	442.7	433.6	422.9	413.8	409.3
72.5°	375.8	368.2	359.0	353.0	346.9
75°	308.8	302.8	296.7	290.6	287.5
77.5°	244.9	238.9	235.8	234.3	231.3
80°	182.6	179.5	179.5	178.0	175.0
82.5°	129.3	126.3	126.3	126.3	124.8
85°	80.6	79.1	80.6	77.6	79.1
87.5°	38.0	38.0	39.6	38.0	39.6
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P243472
 CATALOG NUMBER: S124DRP-H1195D840-X4F0-XX-UDD-F-W

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	21.06	22.68	21.43	22.99	23.31	20.71	22.33	21.08	22.64	22.96
	3H	22.82	24.27	23.19	24.60	24.96	22.43	23.89	22.80	24.21	24.57
	4H	23.47	24.85	23.87	25.19	25.57	23.08	24.45	23.47	24.80	25.17
	6H	23.95	25.22	24.36	25.59	25.98	23.56	24.84	23.98	25.20	25.59
	8H	24.10	25.32	24.52	25.70	26.10	23.73	24.94	24.15	25.33	25.73
	12H	24.21	25.37	24.63	25.75	26.18	23.84	25.00	24.27	25.39	25.81
4H	2H	21.64	23.01	22.03	23.36	23.73	21.36	22.73	21.76	23.08	23.46
	3H	23.61	24.76	24.02	25.16	25.56	23.29	24.44	23.70	24.84	25.24
	4H	24.40	25.44	24.83	25.85	26.29	24.07	25.11	24.50	25.52	25.96
	6H	25.00	25.91	25.45	26.35	26.80	24.68	25.59	25.14	26.03	26.49
	8H	25.20	26.05	25.66	26.49	26.96	24.89	25.74	25.35	26.19	26.65
	12H	25.35	26.11	25.83	26.59	27.06	25.05	25.82	25.53	26.29	26.76
8H	4H	24.68	25.53	25.14	25.97	26.44	24.39	25.24	24.85	25.68	26.15
	6H	25.40	26.11	25.89	26.59	27.07	25.13	25.84	25.62	26.33	26.80
	8H	25.67	26.31	26.18	26.81	27.30	25.41	26.05	25.92	26.56	27.04
	12H	25.90	26.46	26.40	26.95	27.51	25.65	26.21	26.16	26.70	27.26
12H	4H	24.71	25.47	25.19	25.95	26.42	24.42	25.19	24.90	25.66	26.13
	6H	25.45	26.09	25.96	26.59	27.08	25.19	25.83	25.70	26.33	26.82
	8H	25.78	26.34	26.28	26.83	27.39	25.53	26.10	26.04	26.59	27.15