

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: P242627

Luminaire Tested: S124DRP-S1195D940-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242627
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-5)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DRP-S1195D940-X4F0-XX-UDD-F-W
Description: DEFINE 4 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

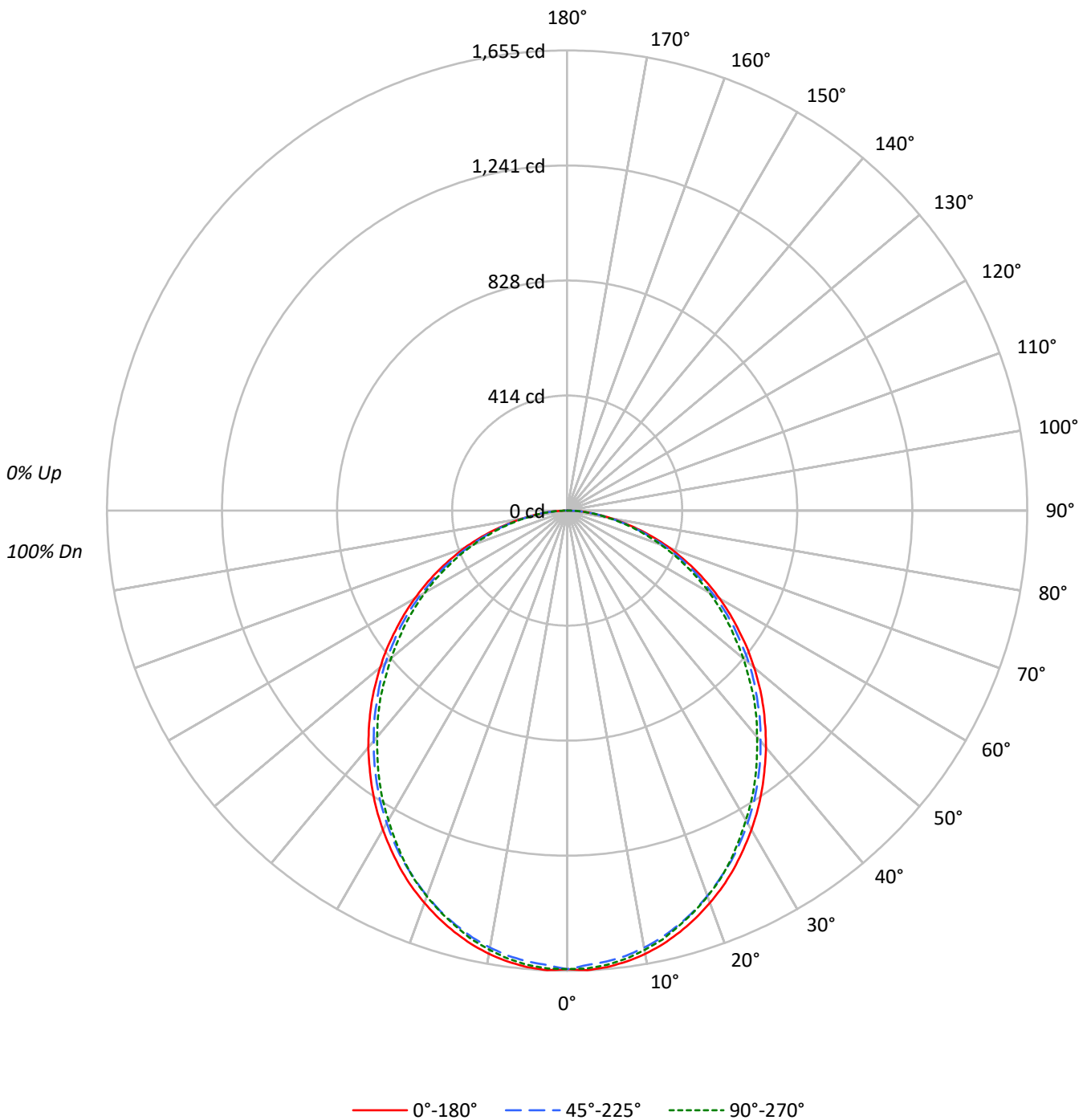
Lumens per Lamp: N/A
Luminaire Lumens: 4233.3 lumens
Efficiency: N/A
Efficacy: 103.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 41.1
Input Voltage (V): 120
Input Current (A_{in}): 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: P242627

CATALOG NUMBER: S124DRP-S1195D940-X4F0-XX-UDD-F-W

Luminous Intensity Polar Plot



TEST NUMBER: P242627

CATALOG NUMBER: S124DRP-S1195D940-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	47	41	52	46	41	39
7	66	52	44	38	64	52	43	37	50	43	37	49	42	37	47	41	37	35
8	61	48	39	34	60	47	39	34	46	39	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	28	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14660	14660	14660
5°	14705	14528	14634
10°	14612	14410	14481
15°	14436	14205	14242
20°	14201	13952	13964
25°	13934	13662	13623
30°	13606	13321	13199
35°	13266	12964	12793
40°	12913	12560	12330
45°	12543	12161	11928
50°	12135	11806	11440
55°	11694	11347	10978
60°	11253	10832	10501
65°	10758	10340	9923
70°	10201	9686	9307
75°	9348	8895	8668
80°	8323	7980	7781
85°	7282	7007	6874

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 12543 cd/sqm



TEST NUMBER: P242627

CATALOG NUMBER: S124DRP-S1195D940-X4F0-XX-UDD-F-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	155.5	3.7
10°-20°	438.0	10.3
20°-30°	644.6	15.2
30°-40°	749.3	17.7
40°-50°	749.2	17.7
50°-60°	655.3	15.5
60°-70°	486.5	11.5
70°-80°	276.0	6.5
80°-90°	79.0	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°	1238.0	29.2
0°-40°	1987.3	46.9
0°-60°	3391.8	80.1
0°-90°	4233.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4233.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1649	1649	1649	1649	1649	
5°	1648	1643	1628	1643	1640	156
15°	1569	1563	1544	1552	1548	442
25°	1421	1412	1393	1394	1389	654
35°	1222	1213	1195	1186	1179	764
45°	998	988	967	953	949	769
55°	755	751	732	716	708	676
65°	512	505	492	478	472	506
75°	272	266	259	254	252	289
85°	71	71	69	69	67	81
90°	0	0	0	0	0	

TEST NUMBER: P242627

CATALOG NUMBER: S124DRP-S1195D940-X4F0-XX-UDD-F-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1649.3	1649.3	1649.3	1649.3	1649.3
2.5°	1654.6	1650.7	1636.1	1649.3	1648.0
5°	1648.0	1642.7	1628.2	1642.7	1640.1
7.5°	1636.1	1630.8	1615.0	1626.9	1625.6
10°	1618.9	1613.7	1596.5	1607.0	1604.4
12.5°	1596.5	1591.2	1572.7	1584.6	1580.6
15°	1568.7	1563.4	1543.6	1551.5	1547.6
17.5°	1537.0	1530.4	1511.9	1517.2	1514.5
20°	1501.3	1494.7	1474.9	1478.9	1476.2
22.5°	1463.0	1453.7	1433.9	1441.9	1436.6
25°	1420.7	1411.5	1393.0	1394.3	1389.0
27.5°	1373.1	1363.9	1346.7	1344.1	1337.4
30°	1325.6	1315.0	1297.8	1292.5	1285.9
32.5°	1275.3	1266.1	1247.6	1241.0	1234.4
35°	1222.5	1213.2	1194.7	1185.5	1178.9
37.5°	1167.0	1159.0	1139.2	1130.0	1120.7
40°	1112.8	1102.2	1082.4	1069.2	1062.6
42.5°	1054.6	1049.3	1026.9	1011.0	1007.0
45°	997.8	988.5	967.4	952.9	948.9
47.5°	938.3	931.7	911.9	896.0	885.5
50°	877.5	872.2	853.7	835.2	827.3
52.5°	818.1	811.5	791.6	775.8	765.2
55°	754.6	750.7	732.2	716.3	708.4
57.5°	695.2	691.2	672.7	656.8	648.9
60°	633.0	626.4	609.3	597.4	590.7
62.5°	572.2	567.0	548.5	537.9	531.3
65°	511.5	504.8	491.6	478.4	471.8
67.5°	449.3	444.1	430.8	417.6	416.3
70°	392.5	383.3	372.7	362.1	358.1
72.5°	331.7	322.5	314.5	306.6	302.6
75°	272.2	265.6	259.0	253.7	252.4
77.5°	214.1	211.5	204.8	203.5	199.6
80°	162.6	158.6	155.9	153.3	152.0
82.5°	112.3	111.0	111.0	109.7	108.4
85°	71.4	71.4	68.7	68.7	67.4
87.5°	34.4	33.0	31.7	31.7	31.7
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P242627
 CATALOG NUMBER: S124DRP-S1195D940-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	20.63	22.24	20.99	22.56	22.87	20.25	21.87	20.62	22.18	22.49
	3H	22.39	23.85	22.77	24.17	24.53	21.96	23.42	22.34	23.75	24.11
	4H	23.04	24.42	23.44	24.76	25.14	22.61	23.98	23.01	24.33	24.70
	6H	23.52	24.79	23.93	25.15	25.55	23.08	24.36	23.50	24.72	25.11
	8H	23.67	24.88	24.09	25.27	25.67	23.24	24.46	23.67	24.85	25.24
	12H	23.77	24.94	24.20	25.32	25.75	23.35	24.52	23.78	24.90	25.33
4H	2H	21.20	22.57	21.60	22.92	23.30	20.90	22.27	21.30	22.62	23.00
	3H	23.18	24.33	23.59	24.73	25.13	22.83	23.98	23.24	24.38	24.78
	4H	23.96	25.00	24.39	25.41	25.85	23.60	24.64	24.03	25.05	25.49
	6H	24.56	25.47	25.02	25.91	26.37	24.20	25.11	24.65	25.55	26.00
	8H	24.76	25.61	25.22	26.06	26.52	24.41	25.26	24.87	25.70	26.16
	12H	24.91	25.68	25.39	26.15	26.62	24.56	25.32	25.04	25.80	26.27
8H	4H	24.24	25.09	24.70	25.53	26.00	23.92	24.77	24.38	25.21	25.67
	6H	24.96	25.67	25.45	26.15	26.63	24.64	25.35	25.13	25.84	26.31
	8H	25.23	25.86	25.74	26.37	26.86	24.92	25.56	25.43	26.06	26.55
	12H	25.46	26.02	25.97	26.51	27.07	25.15	25.71	25.66	26.20	26.77
12H	4H	24.27	25.03	24.75	25.50	25.97	23.95	24.71	24.43	25.19	25.66
	6H	25.01	25.64	25.52	26.15	26.64	24.70	25.34	25.21	25.84	26.33
	8H	25.34	25.90	25.84	26.39	26.95	25.04	25.60	25.55	26.09	26.65