

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: P243747

Luminaire Tested: S125RDRP-H1270D840-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243747
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-66)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125RDRP-H1270D840-X4F0-XX-UDD-F-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

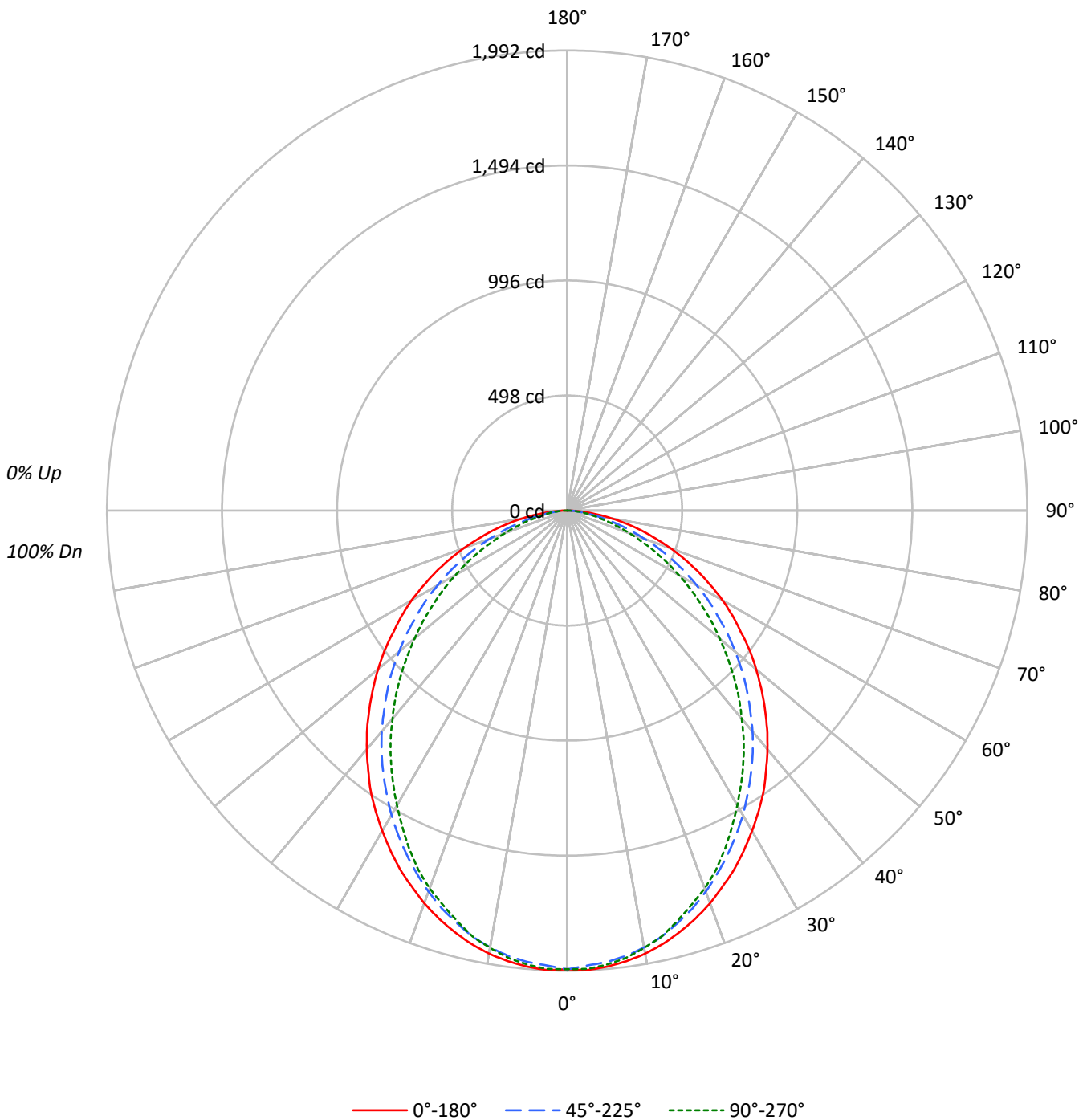
Lumens per Lamp: N/A
Luminaire Lumens: 4746.7 lumens
Efficiency: N/A
Efficacy: 125.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.12 / 1.26
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

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: P243747

CATALOG NUMBER: S125RDRP-H1270D840-X4F0-XX-UDD-F-W

Luminous Intensity Polar Plot





TEST NUMBER: P243747

CATALOG NUMBER: S125RDRP-H1270D840-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	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					100			
1	109	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87					85				
2	100	92	86	80	97	90	84	79	87	82	78	84	79	76	81	77	74					72				
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64					61				
4	84	73	64	58	82	71	63	57	69	62	57	67	61	56	64	59	55					53				
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48					46				
6	72	59	50	44	70	58	50	44	56	49	43	55	48	43	53	47	43					41				
7	67	54	45	39	65	53	45	39	51	44	39	50	43	38	49	43	38					36				
8	62	49	41	35	61	48	40	35	47	40	35	46	39	35	45	39	34					32				
9	58	45	37	32	57	45	37	32	43	36	31	42	36	31	41	35	31					29				
10	55	42	34	29	53	41	34	29	40	33	29	39	33	29	38	33	28					27				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14114	14114	14114
5°	14138	13996	14077
10°	14055	13860	13870
15°	13891	13598	13535
20°	13677	13279	13161
25°	13434	12888	12677
30°	13138	12485	12090
35°	12867	12041	11536
40°	12521	11584	10913
45°	12165	11065	10265
50°	11811	10492	9533
55°	11389	9857	8766
60°	11045	9207	7936
65°	10511	8432	7023
70°	9919	7379	5993
75°	9128	6162	4877
80°	8022	4768	4011
85°	6834	3939	3710

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 12165 cd/sqm



TEST NUMBER: P243747

CATALOG NUMBER: S125RDRP-H1270D840-X4F0-XX-UDD-F-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	187.0	3.9
10°-20°	523.9	11.0
20°-30°	762.4	16.1
30°-40°	873.1	18.4
40°-50°	854.3	18.0
50°-60°	721.3	15.2
60°-70°	505.0	10.6
70°-80°	256.5	5.4
80°-90°	63.1	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°	1473.3	31.0
0°-40°	2346.4	49.4
0°-60°	3922.1	82.6
0°-90°	4746.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4746.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1986	1986	1986	1986	1986	
5°	1982	1977	1962	1974	1973	188
15°	1888	1881	1848	1847	1840	532
25°	1713	1693	1644	1626	1616	788
35°	1483	1448	1388	1347	1330	926
45°	1210	1170	1101	1043	1021	934
55°	919	879	796	732	707	825
65°	625	577	501	439	418	619
75°	332	291	224	188	178	351
85°	84	54	48	46	46	96
90°	0	0	0	0	0	



TEST NUMBER: P243747

CATALOG NUMBER: S125RDRP-H1270D840-X4F0-XX-UDD-F-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1985.8	1985.8	1985.8	1985.8	1985.8
2.5°	1991.5	1987.3	1971.6	1985.8	1985.8
5°	1981.6	1977.3	1961.7	1974.5	1973.1
7.5°	1967.4	1963.1	1944.7	1957.4	1953.2
10°	1947.5	1941.8	1920.5	1927.6	1921.9
12.5°	1920.5	1914.8	1889.3	1892.1	1889.3
15°	1887.8	1880.7	1848.1	1846.6	1839.5
17.5°	1850.9	1841.0	1805.4	1801.2	1789.8
20°	1808.3	1795.5	1755.7	1747.2	1740.1
22.5°	1760.0	1747.2	1700.3	1687.5	1683.3
25°	1713.1	1693.2	1643.5	1626.5	1616.5
27.5°	1657.7	1635.0	1583.8	1561.1	1544.1
30°	1600.9	1575.3	1521.3	1491.5	1473.1
32.5°	1542.7	1512.8	1454.6	1417.7	1402.0
35°	1483.0	1447.5	1387.8	1346.6	1329.6
37.5°	1414.8	1379.3	1319.6	1271.3	1255.7
40°	1349.5	1312.5	1248.6	1196.1	1176.2
42.5°	1281.3	1242.9	1173.3	1117.9	1100.9
45°	1210.3	1170.5	1100.9	1042.6	1021.3
47.5°	1139.2	1099.5	1027.0	968.8	941.8
50°	1068.2	1025.6	948.9	889.2	862.2
52.5°	997.2	950.3	875.0	811.1	787.0
55°	919.1	879.3	795.5	731.6	707.4
57.5°	849.5	805.4	725.9	660.5	633.5
60°	777.0	728.7	647.7	583.8	558.3
62.5°	700.3	652.0	573.9	510.0	487.2
65°	625.0	576.7	501.4	438.9	417.6
67.5°	549.7	504.3	429.0	370.7	346.6
70°	477.3	430.4	355.1	302.6	288.4
72.5°	400.6	363.6	288.4	241.5	230.1
75°	332.4	291.2	224.4	187.5	177.6
77.5°	262.8	223.0	166.2	140.6	132.1
80°	196.0	161.9	116.5	100.9	98.0
82.5°	134.9	102.3	76.7	73.9	72.4
85°	83.8	54.0	48.3	45.5	45.5
87.5°	35.5	22.7	22.7	21.3	22.7
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P243747

CATALOG NUMBER: S125RDRP-H1270D840-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	20.62	22.20	20.99	22.52	22.83	19.11	20.69	19.48	21.00	21.32
	3H	22.38	23.81	22.76	24.13	24.49	20.39	21.81	20.77	22.14	22.50
	4H	23.04	24.38	23.44	24.72	25.10	20.78	22.11	21.18	22.46	22.84
	6H	23.51	24.75	23.92	25.11	25.50	21.01	22.25	21.43	22.62	23.01
	8H	23.66	24.83	24.08	25.22	25.62	21.09	22.27	21.52	22.66	23.06
	12H	23.75	24.88	24.18	25.26	25.69	21.14	22.27	21.57	22.65	23.08
4H	2H	21.02	22.36	21.42	22.71	23.08	19.80	21.13	20.20	21.48	21.86
	3H	22.99	24.10	23.40	24.50	24.90	21.26	22.37	21.67	22.77	23.17
	4H	23.77	24.77	24.20	25.18	25.62	21.73	22.73	22.16	23.14	23.58
	6H	24.36	25.23	24.81	25.67	26.13	22.05	22.92	22.50	23.36	23.82
	8H	24.54	25.36	25.01	25.80	26.27	22.15	22.97	22.61	23.41	23.88
	12H	24.68	25.41	25.16	25.89	26.36	22.24	22.97	22.72	23.44	23.91
8H	4H	23.89	24.70	24.35	25.15	25.61	22.04	22.85	22.50	23.30	23.76
	6H	24.56	25.24	25.06	25.73	26.20	22.43	23.11	22.93	23.60	24.07
	8H	24.80	25.40	25.31	25.91	26.40	22.58	23.19	23.10	23.70	24.19
	12H	24.99	25.52	25.50	26.01	26.58	22.72	23.26	23.23	23.75	24.31
12H	4H	23.88	24.61	24.36	25.09	25.56	22.07	22.80	22.55	23.28	23.75
	6H	24.55	25.16	25.06	25.67	26.15	22.48	23.09	22.99	23.60	24.08
	8H	24.83	25.37	25.34	25.86	26.42	22.68	23.22	23.19	23.71	24.27