

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: P242882

Luminaire Tested: S125RDRP-S1270D835-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-2024  
Report Number: P242882  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-27)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDRP-S1270D835-X4F0-XX-UDD-F-W  
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

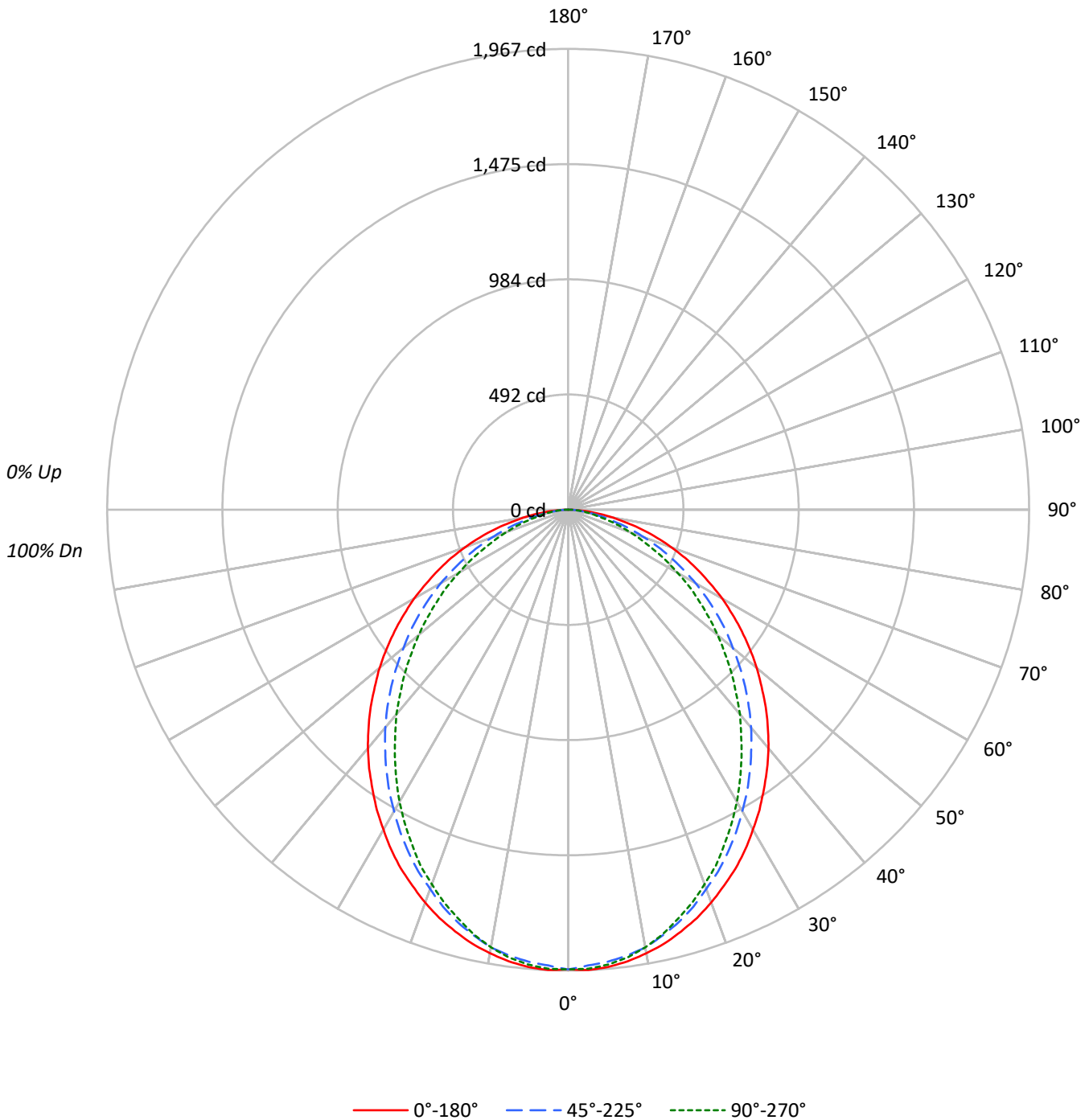
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4636.1 lumens  
Efficiency: N/A  
Efficacy: 112.8 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25  
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 41.1  
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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### 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	109	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85
2	100	92	86	80	98	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	64	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	44	55	48	43	53	47	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38	36
8	62	49	41	35	61	48	41	35	47	40	35	46	39	35	45	39	34	33
9	58	45	37	32	57	45	37	32	44	37	32	42	36	31	41	36	31	29
10	55	42	34	29	54	41	34	29	40	34	29	39	33	29	39	33	29	27

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	13947	13947	13947
5°	13979	13820	13904
10°	13873	13691	13691
15°	13708	13414	13304
20°	13496	13026	12869
25°	13250	12645	12366
30°	12941	12199	11810
35°	12628	11740	11187
40°	12334	11262	10574
45°	11977	10726	9907
50°	11619	10144	9209
55°	11203	9586	8466
60°	10786	8911	7669
65°	10294	8126	6754
70°	9732	7144	5821
75°	8955	6022	4844
80°	7887	4731	4064
85°	6646	3865	3629

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 11977 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	184.7	4.0
10°-20°	516.1	11.1
20°-30°	748.3	16.1
30°-40°	852.6	18.4
40°-50°	831.0	17.9
50°-60°	699.4	15.1
60°-70°	490.1	10.6
70°-80°	251.2	5.4
80°-90°	62.7	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°	1449.2	31.3
0°-40°	2301.7	49.6
0°-60°	3832.1	82.7
0°-90°	4636.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4636.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1962	1962	1962	1962	1962	
5°	1959	1953	1937	1952	1949	186
15°	1863	1854	1823	1822	1808	525
25°	1690	1667	1612	1593	1577	778
35°	1455	1420	1353	1310	1289	911
45°	1192	1149	1067	1008	986	919
55°	904	857	774	707	683	808
65°	612	562	483	424	402	606
75°	326	282	219	187	176	345
85°	82	55	47	46	44	94
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1962.3	1962.3	1962.3	1962.3	1962.3
2.5°	1966.7	1962.3	1947.4	1962.3	1960.8
5°	1959.3	1953.4	1937.1	1951.9	1948.9
7.5°	1944.5	1938.6	1919.3	1931.1	1928.2
10°	1922.3	1917.8	1897.1	1901.5	1897.1
12.5°	1897.1	1891.1	1861.5	1864.5	1857.0
15°	1863.0	1854.1	1823.0	1821.5	1808.1
17.5°	1827.4	1814.1	1777.0	1769.6	1759.2
20°	1784.4	1769.6	1722.2	1714.8	1701.4
22.5°	1737.0	1722.2	1671.8	1655.5	1645.1
25°	1689.6	1667.3	1612.5	1593.2	1576.9
27.5°	1636.2	1609.5	1551.7	1526.5	1510.2
30°	1576.9	1548.8	1486.5	1452.4	1439.1
32.5°	1519.1	1485.0	1421.3	1382.8	1365.0
35°	1455.4	1419.8	1353.1	1310.2	1289.4
37.5°	1394.6	1351.7	1283.5	1233.1	1212.3
40°	1329.4	1285.0	1213.8	1157.5	1139.7
42.5°	1261.2	1215.3	1141.2	1087.8	1059.7
45°	1191.6	1148.6	1067.1	1007.8	985.6
47.5°	1119.0	1074.5	993.0	932.2	907.0
50°	1050.8	1001.9	917.4	855.2	832.9
52.5°	976.7	926.3	847.7	779.6	757.3
55°	904.1	856.6	773.6	707.0	683.2
57.5°	830.0	779.6	699.5	634.3	613.6
60°	758.8	707.0	626.9	561.7	539.5
62.5°	683.2	634.3	552.8	493.5	471.3
65°	612.1	561.7	483.2	423.9	401.6
67.5°	541.0	490.6	415.0	358.7	340.9
70°	468.3	417.9	343.8	297.9	280.1
72.5°	397.2	348.3	280.1	238.6	228.2
75°	326.1	281.6	219.3	186.7	176.4
77.5°	253.4	217.9	166.0	140.8	131.9
80°	192.7	157.1	115.6	102.3	99.3
82.5°	133.4	102.3	77.1	72.6	71.1
85°	81.5	54.8	47.4	45.9	44.5
87.5°	34.1	23.7	22.2	22.2	20.7
90°	0.0	0.0	0.0	0.0	0.0



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**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	20.49	22.07	20.86	22.38	22.70	18.93	20.50	19.29	20.82	21.13
	3H	22.28	23.70	22.66	24.03	24.39	20.24	21.66	20.62	21.99	22.35
	4H	22.94	24.27	23.34	24.62	25.00	20.65	21.98	21.05	22.33	22.71
	6H	23.41	24.64	23.82	25.01	25.40	20.91	22.14	21.32	22.51	22.90
	8H	23.56	24.74	23.99	25.13	25.53	20.99	22.16	21.41	22.55	22.95
	12H	23.66	24.78	24.09	25.17	25.59	21.04	22.17	21.47	22.55	22.98
4H	2H	20.89	22.22	21.29	22.57	22.95	19.61	20.95	20.01	21.30	21.67
	3H	22.87	23.98	23.28	24.38	24.78	21.12	22.23	21.53	22.63	23.03
	4H	23.65	24.66	24.09	25.07	25.51	21.61	22.61	22.04	23.03	23.46
	6H	24.25	25.12	24.70	25.56	26.02	21.95	22.83	22.41	23.27	23.73
	8H	24.44	25.26	24.90	25.70	26.17	22.06	22.88	22.53	23.32	23.79
	12H	24.58	25.31	25.06	25.79	26.26	22.15	22.88	22.63	23.36	23.83
8H	4H	23.78	24.59	24.24	25.04	25.50	21.92	22.74	22.39	23.18	23.65
	6H	24.45	25.13	24.95	25.62	26.10	22.35	23.02	22.84	23.51	23.99
	8H	24.70	25.31	25.21	25.81	26.30	22.51	23.11	23.02	23.62	24.11
	12H	24.90	25.43	25.41	25.92	26.49	22.65	23.18	23.16	23.68	24.24
12H	4H	23.77	24.50	24.25	24.98	25.45	21.96	22.69	22.44	23.17	23.64
	6H	24.45	25.05	24.96	25.56	26.05	22.40	23.01	22.91	23.51	24.00
	8H	24.74	25.27	25.24	25.76	26.33	22.61	23.14	23.12	23.63	24.20