

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: P242784

Luminaire Tested: S125DRP-S1270D840-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242784
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-12)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125DRP-S1270D840-X4F0-XX-UDD-F-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

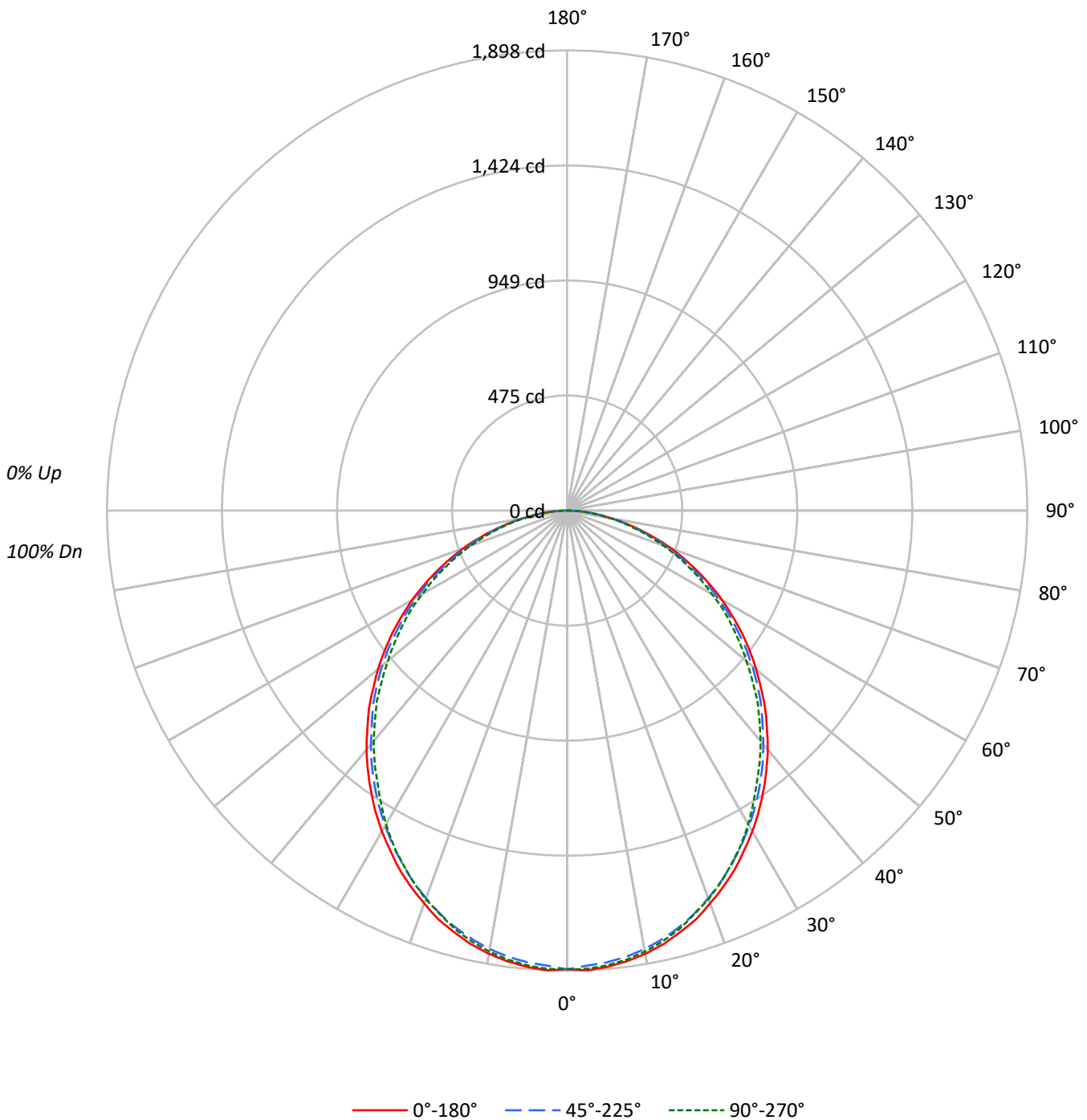
Lumens per Lamp: N/A
Luminaire Lumens: 4924.0 lumens
Efficiency: N/A
Efficacy: 119.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.18 / 1.3
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 41.1
Input Voltage (V): 120
Input Current (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: P242784

CATALOG NUMBER: S125DRP-S1270D840-X4F0-XX-UDD-F-W

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13446	13446	13446
5°	13476	13348	13433
10°	13394	13253	13329
15°	13248	13094	13150
20°	13041	12871	12893
25°	12817	12606	12594
30°	12541	12320	12259
35°	12246	12012	11843
40°	11943	11678	11512
45°	11614	11373	11148
50°	11254	11005	10674
55°	10906	10590	10293
60°	10489	10169	9808
65°	9993	9665	9339
70°	9517	9081	8771
75°	8672	8384	8095
80°	7719	7597	7412
85°	6711	6834	6467

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 11614 cd/sqm

TEST NUMBER: P242784

CATALOG NUMBER: S125DRP-S1270D840-X4F0-XX-UDD-F-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	178.5	3.6
10°-20°	504.2	10.2
20°-30°	744.4	15.1
30°-40°	868.5	17.6
40°-50°	872.3	17.7
50°-60°	765.7	15.6
60°-70°	570.4	11.6
70°-80°	325.8	6.6
80°-90°	94.0	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°	1427.2	29.0
0°-40°	2295.7	46.6
0°-60°	3933.8	79.9
0°-90°	4924.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4924.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1892	1892	1892	1892	1892	
5°	1889	1886	1871	1884	1883	179
15°	1800	1796	1780	1787	1787	508
25°	1634	1627	1608	1610	1606	752
35°	1411	1405	1384	1377	1365	883
45°	1156	1150	1132	1114	1109	890
55°	880	876	855	841	831	786
65°	594	591	575	561	555	589
75°	316	313	305	301	295	336
85°	82	84	84	82	79	96
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1891.8	1891.8	1891.8	1891.8	1891.8
2.5°	1897.8	1893.3	1878.4	1893.3	1891.8
5°	1888.8	1885.8	1870.9	1884.3	1882.8
7.5°	1875.4	1872.4	1855.9	1869.4	1867.9
10°	1855.9	1852.9	1836.4	1848.4	1846.9
12.5°	1832.0	1826.0	1811.0	1820.0	1820.0
15°	1800.5	1796.0	1779.6	1787.1	1787.1
17.5°	1767.6	1760.1	1743.7	1752.6	1745.1
20°	1724.2	1721.2	1701.7	1712.2	1704.7
22.5°	1680.8	1674.8	1656.8	1662.8	1658.3
25°	1634.4	1626.9	1607.5	1610.4	1606.0
27.5°	1580.5	1576.0	1556.6	1558.1	1553.6
30°	1528.1	1523.6	1501.2	1498.2	1493.7
32.5°	1471.3	1463.8	1444.3	1438.3	1429.3
35°	1411.4	1405.4	1384.4	1377.0	1365.0
37.5°	1350.0	1342.5	1323.1	1312.6	1305.1
40°	1287.2	1279.7	1258.7	1245.3	1240.8
42.5°	1219.8	1213.8	1192.9	1180.9	1173.4
45°	1155.5	1149.5	1131.5	1113.5	1109.1
47.5°	1085.1	1086.6	1064.2	1046.2	1035.7
50°	1017.8	1013.3	995.3	975.8	965.4
52.5°	948.9	945.9	926.5	910.0	898.0
55°	880.1	875.6	854.6	841.1	830.7
57.5°	806.7	805.2	787.3	769.3	764.8
60°	737.9	731.9	715.4	700.5	690.0
62.5°	666.0	661.5	648.1	631.6	624.1
65°	594.2	591.2	574.7	561.3	555.3
67.5°	523.8	517.9	505.9	493.9	490.9
70°	458.0	450.5	437.0	428.1	422.1
72.5°	386.1	381.7	374.2	363.7	357.7
75°	315.8	312.8	305.3	300.8	294.8
77.5°	249.9	248.5	244.0	241.0	236.5
80°	188.6	188.6	185.6	184.1	181.1
82.5°	134.7	131.7	131.7	128.7	128.7
85°	82.3	83.8	83.8	82.3	79.3
87.5°	40.4	40.4	38.9	38.9	35.9
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	20.38	22.00	20.74	22.31	22.62	20.05	21.67	20.42	21.98	22.30
	3H	22.15	23.61	22.52	23.94	24.30	21.78	23.25	22.16	23.57	23.93
	4H	22.80	24.18	23.20	24.53	24.91	22.43	23.81	22.83	24.15	24.53
	6H	23.28	24.56	23.69	24.92	25.31	22.91	24.19	23.33	24.56	24.95
	8H	23.44	24.66	23.86	25.05	25.44	23.08	24.29	23.50	24.68	25.08
	12H	23.54	24.71	23.97	25.09	25.52	23.19	24.35	23.62	24.74	25.16
4H	2H	20.96	22.33	21.35	22.68	23.06	20.70	22.07	21.10	22.42	22.80
	3H	22.95	24.11	23.36	24.50	24.90	22.65	23.80	23.06	24.20	24.60
	4H	23.74	24.78	24.17	25.20	25.63	23.42	24.47	23.85	24.88	25.32
	6H	24.35	25.26	24.80	25.70	26.15	24.04	24.95	24.49	25.39	25.85
	8H	24.55	25.41	25.01	25.85	26.31	24.25	25.10	24.71	25.54	26.01
	12H	24.70	25.47	25.18	25.95	26.42	24.40	25.17	24.88	25.65	26.11
8H	4H	24.02	24.88	24.49	25.32	25.79	23.75	24.60	24.21	25.04	25.51
	6H	24.75	25.46	25.25	25.95	26.43	24.49	25.20	24.98	25.68	26.16
	8H	25.03	25.67	25.54	26.18	26.66	24.77	25.41	25.28	25.91	26.40
	12H	25.26	25.83	25.77	26.32	26.88	25.00	25.57	25.51	26.06	26.62
12H	4H	24.05	24.82	24.53	25.30	25.77	23.78	24.55	24.26	25.03	25.50
	6H	24.81	25.45	25.32	25.95	26.44	24.55	25.19	25.06	25.69	26.18
	8H	25.14	25.71	25.65	26.20	26.76	24.89	25.45	25.40	25.95	26.51