

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: P243643

Luminaire Tested: S125DRP-H1090D840-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243643
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-51)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125DRP-H1090D840-X4F0-XX-UDD-F-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

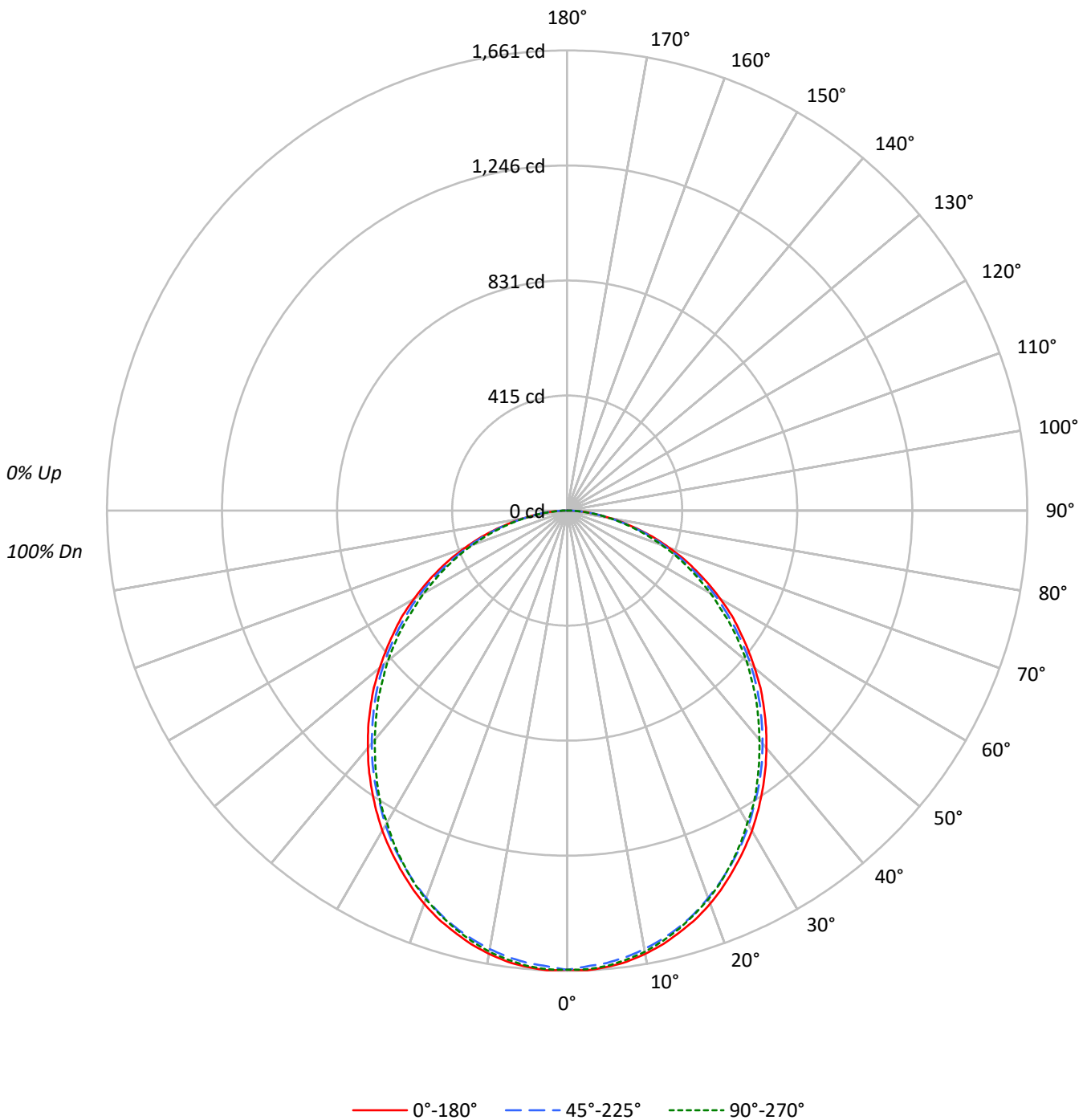
Lumens per Lamp: N/A
Luminaire Lumens: 4278.2 lumens
Efficiency: N/A
Efficacy: 135.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 31.5
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	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	49	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°	11780	11780	11780
5°	11798	11694	11773
10°	11724	11601	11672
15°	11587	11462	11497
20°	11422	11257	11285
25°	11185	11024	11004
30°	10947	10758	10678
35°	10667	10477	10381
40°	10379	10176	10018
45°	10096	9875	9692
50°	9761	9560	9344
55°	9432	9176	8935
60°	9075	8815	8505
65°	8651	8343	8057
70°	8111	7807	7556
75°	7480	7247	6912
80°	6520	6471	6320
85°	5651	5651	5358

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10096 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	156.3	3.7
10°-20°	441.2	10.3
20°-30°	650.4	15.2
30°-40°	757.5	17.7
40°-50°	759.0	17.7
50°-60°	663.6	15.5
60°-70°	492.4	11.5
70°-80°	279.3	6.5
80°-90°	78.3	1.8
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°	1248.0	29.2
0°-40°	2005.5	46.9
0°-60°	3428.1	80.1
0°-90°	4278.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4278.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1657	1657	1657	1657	1657	
5°	1654	1651	1639	1651	1650	157
15°	1575	1572	1558	1566	1562	444
25°	1426	1422	1406	1409	1403	657
35°	1229	1222	1208	1200	1196	769
45°	1004	1002	982	968	964	775
55°	761	760	740	725	721	682
65°	514	511	496	485	479	510
75°	272	268	264	259	252	289
85°	69	69	69	67	66	81
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1657.4	1657.4	1657.4	1657.4	1657.4
2.5°	1661.0	1658.6	1646.4	1658.6	1657.4
5°	1653.7	1651.3	1639.1	1651.3	1650.1
7.5°	1642.8	1639.1	1625.8	1637.9	1635.5
10°	1624.5	1622.1	1607.5	1617.3	1617.3
12.5°	1602.7	1599.0	1584.4	1592.9	1591.7
15°	1574.7	1572.3	1557.7	1566.2	1562.5
17.5°	1545.5	1539.4	1526.1	1533.4	1528.5
20°	1510.2	1505.4	1488.4	1494.4	1492.0
22.5°	1470.1	1464.0	1448.2	1451.9	1450.7
25°	1426.3	1421.5	1405.7	1409.3	1403.2
27.5°	1381.4	1375.3	1360.7	1360.7	1354.6
30°	1333.9	1327.8	1310.8	1310.8	1301.1
32.5°	1282.9	1278.0	1257.3	1256.1	1253.7
35°	1229.4	1222.1	1207.5	1200.2	1196.5
37.5°	1175.9	1169.8	1154.0	1144.2	1138.2
40°	1118.7	1115.1	1096.8	1088.3	1079.8
42.5°	1062.8	1059.1	1039.7	1025.1	1021.4
45°	1004.4	1002.0	982.5	967.9	964.3
47.5°	946.0	943.6	924.1	908.3	902.3
50°	882.8	882.8	864.6	848.8	845.1
52.5°	822.0	820.8	802.5	786.7	783.1
55°	761.2	760.0	740.5	724.7	721.1
57.5°	704.1	696.8	679.7	667.6	655.4
60°	638.4	634.7	620.1	604.3	598.3
62.5°	577.6	572.7	558.1	544.8	536.2
65°	514.4	510.7	496.1	485.2	479.1
67.5°	454.8	449.9	435.3	426.8	421.9
70°	390.3	386.7	375.7	364.8	363.6
72.5°	333.2	328.3	322.2	312.5	307.6
75°	272.4	267.5	263.9	259.0	251.7
77.5°	214.0	211.6	209.1	205.5	201.9
80°	159.3	159.3	158.1	155.6	154.4
82.5°	113.1	114.3	110.7	108.2	108.2
85°	69.3	69.3	69.3	66.9	65.7
87.5°	34.0	30.4	30.4	28.0	28.0
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	19.88	21.49	20.24	21.81	22.12	19.54	21.16	19.91	21.47	21.78
	3H	21.64	23.09	22.01	23.42	23.78	21.25	22.71	21.63	23.04	23.40
	4H	22.28	23.66	22.68	24.01	24.38	21.89	23.26	22.29	23.61	23.99
	6H	22.75	24.02	23.16	24.38	24.77	22.37	23.64	22.78	24.00	24.39
	8H	22.90	24.11	23.32	24.50	24.90	22.52	23.74	22.94	24.12	24.52
	12H	23.00	24.16	23.43	24.54	24.97	22.62	23.79	23.05	24.17	24.60
4H	2H	20.45	21.82	20.85	22.17	22.55	20.18	21.56	20.58	21.90	22.28
	3H	22.43	23.58	22.84	23.98	24.38	22.11	23.26	22.52	23.66	24.06
	4H	23.21	24.25	23.64	24.66	25.10	22.88	23.92	23.31	24.33	24.77
	6H	23.80	24.71	24.25	25.15	25.60	23.48	24.39	23.94	24.83	25.29
	8H	24.00	24.85	24.46	25.29	25.75	23.68	24.53	24.14	24.97	25.44
	12H	24.14	24.90	24.62	25.38	25.85	23.83	24.59	24.31	25.07	25.53
8H	4H	23.49	24.34	23.95	24.78	25.25	23.20	24.05	23.66	24.49	24.96
	6H	24.20	24.91	24.69	25.39	25.87	23.92	24.63	24.42	25.12	25.59
	8H	24.47	25.11	24.98	25.61	26.10	24.19	24.83	24.70	25.33	25.82
	12H	24.69	25.25	25.20	25.74	26.30	24.41	24.97	24.92	25.46	26.02
12H	4H	23.52	24.28	24.00	24.76	25.23	23.24	24.00	23.72	24.48	24.94
	6H	24.25	24.88	24.76	25.39	25.88	23.98	24.62	24.49	25.12	25.61
	8H	24.58	25.14	25.08	25.63	26.19	24.31	24.87	24.82	25.36	25.92