

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: P243635

Luminaire Tested: S125DRP-H1270D830-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243635
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-H1270D830-X4F0-XX-UDD-F-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

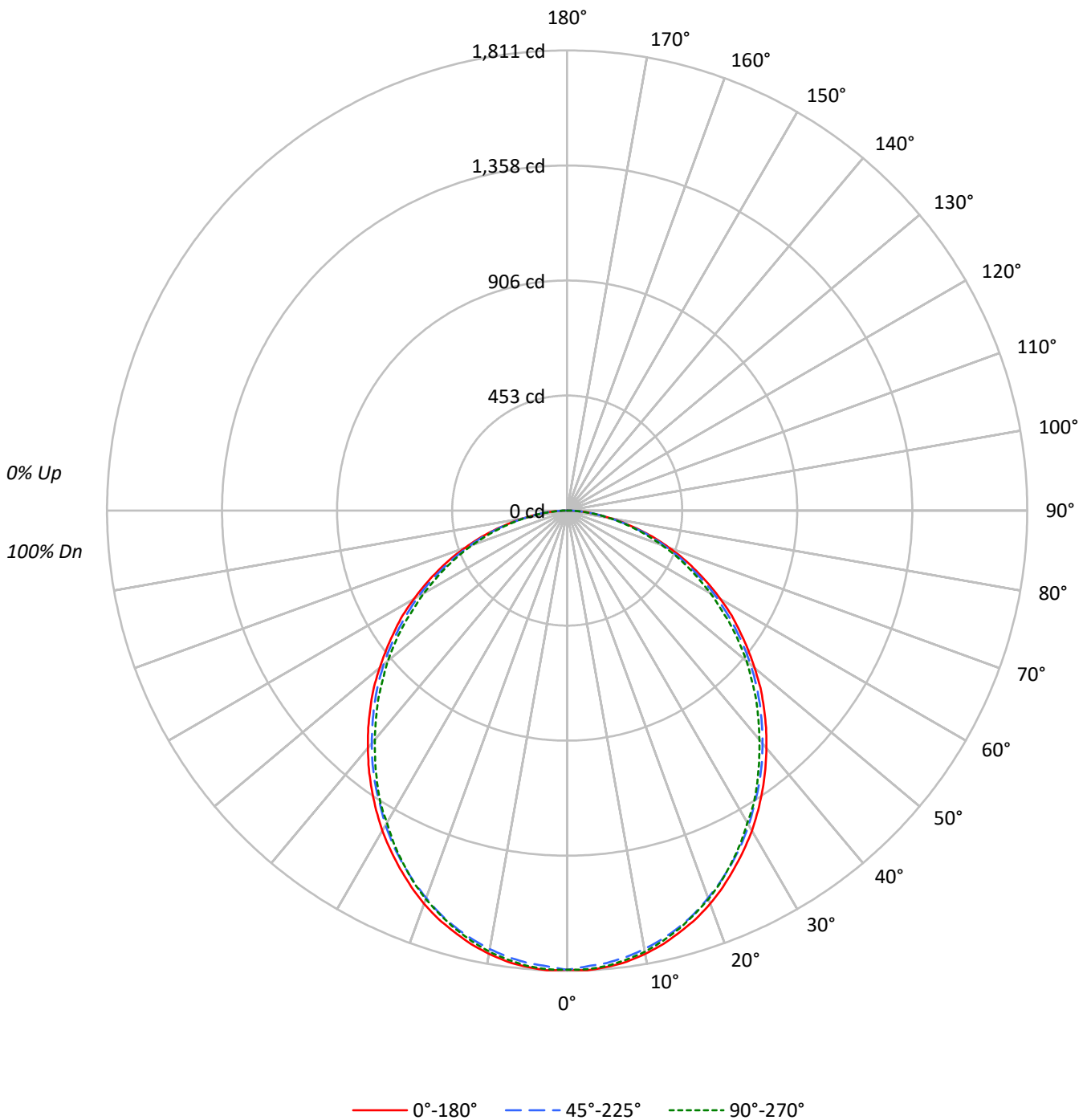
Lumens per Lamp: N/A
Luminaire Lumens: 4664.6 lumens
Efficiency: N/A
Efficacy: 123.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 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

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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°	12844	12844	12844
5°	12864	12751	12836
10°	12783	12649	12726
15°	12633	12496	12536
20°	12454	12274	12304
25°	12196	12019	11998
30°	11936	11729	11642
35°	11630	11423	11319
40°	11316	11096	10923
45°	11007	10767	10568
50°	10642	10422	10188
55°	10284	10005	9742
60°	9893	9612	9272
65°	9431	9097	8785
70°	8844	8514	8237
75°	8156	7900	7535
80°	7109	7056	6893
85°	6165	6165	5839

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 11007 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	170.5	3.7
10°-20°	481.1	10.3
20°-30°	709.2	15.2
30°-40°	825.9	17.7
40°-50°	827.6	17.7
50°-60°	723.5	15.5
60°-70°	536.9	11.5
70°-80°	304.5	6.5
80°-90°	85.4	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°	1360.8	29.2
0°-40°	2186.6	46.9
0°-60°	3737.7	80.1
0°-90°	4664.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4664.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1807	1807	1807	1807	1807	
5°	1803	1800	1787	1800	1799	171
15°	1717	1714	1698	1708	1704	484
25°	1555	1550	1533	1537	1530	717
35°	1340	1332	1316	1309	1305	839
45°	1095	1092	1071	1055	1051	845
55°	830	829	807	790	786	743
65°	561	557	541	529	522	556
75°	297	292	288	282	274	315
85°	76	76	76	73	72	88
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1807.1	1807.1	1807.1	1807.1	1807.1
2.5°	1811.0	1808.4	1795.1	1808.4	1807.1
5°	1803.1	1800.4	1787.2	1800.4	1799.1
7.5°	1791.2	1787.2	1772.6	1785.9	1783.2
10°	1771.3	1768.6	1752.7	1763.3	1763.3
12.5°	1747.4	1743.4	1727.5	1736.8	1735.5
15°	1716.9	1714.3	1698.3	1707.6	1703.7
17.5°	1685.1	1678.5	1663.9	1671.8	1666.5
20°	1646.6	1641.3	1622.8	1629.4	1626.8
22.5°	1602.9	1596.3	1579.0	1583.0	1581.7
25°	1555.2	1549.9	1532.6	1536.6	1530.0
27.5°	1506.1	1499.5	1483.6	1483.6	1476.9
30°	1454.4	1447.8	1429.2	1429.2	1418.6
32.5°	1398.7	1393.4	1370.9	1369.5	1366.9
35°	1340.4	1332.4	1316.5	1308.6	1304.6
37.5°	1282.0	1275.4	1258.2	1247.6	1240.9
40°	1219.7	1215.8	1195.9	1186.6	1177.3
42.5°	1158.7	1154.8	1133.6	1117.6	1113.7
45°	1095.1	1092.5	1071.2	1055.3	1051.4
47.5°	1031.5	1028.8	1007.6	990.4	983.7
50°	962.5	962.5	942.6	925.4	921.4
52.5°	896.2	894.9	875.0	857.8	853.8
55°	829.9	828.6	807.4	790.2	786.2
57.5°	767.6	759.7	741.1	727.9	714.6
60°	696.0	692.1	676.2	658.9	652.3
62.5°	629.8	624.5	608.5	594.0	584.7
65°	560.8	556.8	540.9	529.0	522.4
67.5°	495.8	490.5	474.6	465.4	460.1
70°	425.6	421.6	409.7	397.7	396.4
72.5°	363.3	358.0	351.3	340.7	335.4
75°	297.0	291.7	287.7	282.4	274.4
77.5°	233.3	230.7	228.0	224.1	220.1
80°	173.7	173.7	172.4	169.7	168.4
82.5°	123.3	124.6	120.6	118.0	118.0
85°	75.6	75.6	75.6	72.9	71.6
87.5°	37.1	33.1	33.1	30.5	30.5
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	20.18	21.79	20.54	22.11	22.42	19.84	21.46	20.21	21.77	22.09
	3H	21.94	23.39	22.31	23.72	24.08	21.55	23.01	21.93	23.34	23.70
	4H	22.59	23.96	22.98	24.31	24.68	22.19	23.57	22.59	23.91	24.29
	6H	23.05	24.32	23.46	24.68	25.07	22.67	23.94	23.08	24.30	24.69
	8H	23.20	24.41	23.62	24.80	25.20	22.82	24.04	23.25	24.42	24.82
	12H	23.30	24.46	23.73	24.84	25.27	22.92	24.09	23.35	24.47	24.90
4H	2H	20.75	22.12	21.15	22.47	22.85	20.48	21.86	20.88	22.20	22.58
	3H	22.73	23.88	23.14	24.28	24.68	22.41	23.56	22.82	23.96	24.36
	4H	23.51	24.55	23.94	24.96	25.40	23.18	24.22	23.61	24.63	25.07
	6H	24.10	25.01	24.55	25.45	25.90	23.78	24.69	24.24	25.13	25.59
	8H	24.30	25.15	24.76	25.59	26.05	23.98	24.83	24.44	25.27	25.74
	12H	24.44	25.20	24.92	25.68	26.15	24.13	24.89	24.61	25.37	25.84
8H	4H	23.79	24.64	24.25	25.08	25.55	23.50	24.35	23.96	24.79	25.26
	6H	24.50	25.21	24.99	25.69	26.17	24.22	24.93	24.72	25.42	25.89
	8H	24.77	25.41	25.28	25.91	26.40	24.49	25.13	25.00	25.64	26.12
	12H	24.99	25.55	25.50	26.04	26.60	24.71	25.27	25.22	25.76	26.32
12H	4H	23.82	24.58	24.30	25.06	25.53	23.54	24.30	24.02	24.78	25.25
	6H	24.55	25.18	25.06	25.69	26.18	24.28	24.92	24.79	25.42	25.91
	8H	24.88	25.44	25.38	25.93	26.49	24.61	25.17	25.12	25.66	26.22