

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: P243634

Luminaire Tested: S125DRP-H1090D830-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243634
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-H1090D830-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

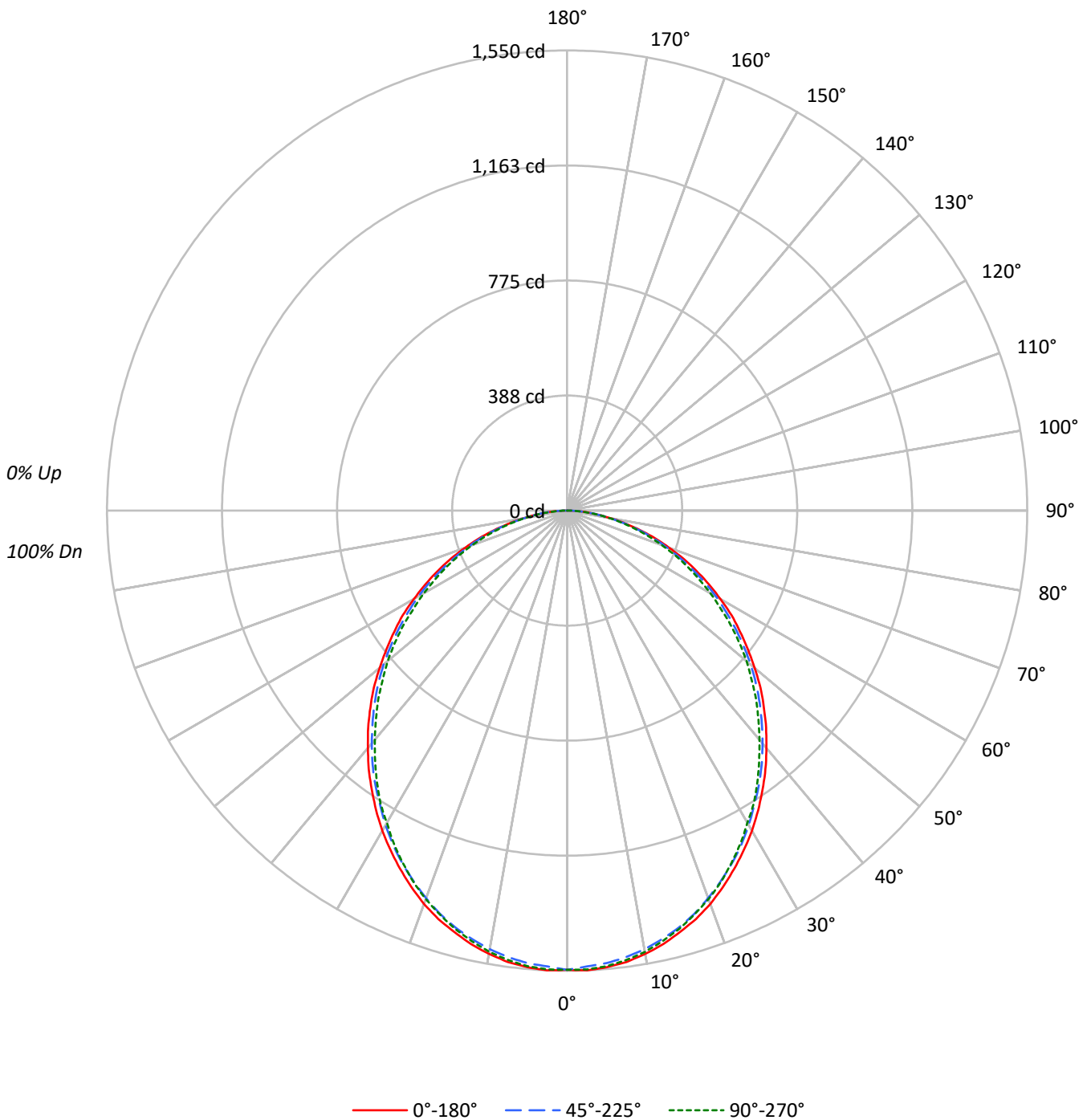
Lumens per Lamp: N/A
Luminaire Lumens: 3993.0 lumens
Efficiency: N/A
Efficacy: 126.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

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°	10994	10994	10994
5°	11012	10915	10988
10°	10942	10828	10893
15°	10814	10697	10731
20°	10661	10506	10532
25°	10440	10289	10271
30°	10218	10040	9966
35°	9955	9778	9690
40°	9687	9498	9350
45°	9422	9217	9046
50°	9110	8922	8722
55°	8804	8565	8339
60°	8469	8227	7937
65°	8074	7786	7521
70°	7570	7288	7051
75°	6981	6764	6451
80°	6086	6037	5898
85°	5276	5276	4999

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9422 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.9	3.7
10°-20°	411.8	10.3
20°-30°	607.1	15.2
30°-40°	707.0	17.7
40°-50°	708.4	17.7
50°-60°	619.3	15.5
60°-70°	459.6	11.5
70°-80°	260.7	6.5
80°-90°	73.1	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°	1164.8	29.2
0°-40°	1871.8	46.9
0°-60°	3199.6	80.1
0°-90°	3993.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3993.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1547	1547	1547	1547	1547	
5°	1544	1541	1530	1541	1540	146
15°	1470	1467	1454	1462	1458	415
25°	1331	1327	1312	1315	1310	613
35°	1147	1141	1127	1120	1117	718
45°	937	935	917	903	900	723
55°	710	709	691	676	673	636
65°	480	477	463	453	447	476
75°	254	250	246	242	235	269
85°	65	65	65	62	61	75
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1546.9	1546.9	1546.9	1546.9	1546.9
2.5°	1550.3	1548.0	1536.7	1548.0	1546.9
5°	1543.5	1541.2	1529.9	1541.2	1540.1
7.5°	1533.3	1529.9	1517.4	1528.7	1526.5
10°	1516.2	1514.0	1500.4	1509.4	1509.4
12.5°	1495.8	1492.4	1478.8	1486.7	1485.6
15°	1469.7	1467.4	1453.8	1461.8	1458.4
17.5°	1442.5	1436.8	1424.3	1431.1	1426.6
20°	1409.6	1405.0	1389.1	1394.8	1392.5
22.5°	1372.1	1366.4	1351.7	1355.1	1354.0
25°	1331.3	1326.7	1312.0	1315.4	1309.7
27.5°	1289.3	1283.6	1270.0	1270.0	1264.3
30°	1245.0	1239.3	1223.4	1223.4	1214.4
32.5°	1197.3	1192.8	1173.5	1172.4	1170.1
35°	1147.4	1140.6	1127.0	1120.2	1116.8
37.5°	1097.5	1091.8	1077.0	1068.0	1062.3
40°	1044.1	1040.7	1023.7	1015.8	1007.8
42.5°	991.9	988.5	970.4	956.7	953.3
45°	937.4	935.2	917.0	903.4	900.0
47.5°	883.0	880.7	862.5	847.8	842.1
50°	823.9	823.9	806.9	792.2	788.8
52.5°	767.2	766.1	749.0	734.3	730.9
55°	710.5	709.3	691.2	676.4	673.0
57.5°	657.1	650.3	634.4	623.1	611.7
60°	595.8	592.4	578.8	564.1	558.4
62.5°	539.1	534.5	520.9	508.4	500.5
65°	480.1	476.7	463.0	452.8	447.2
67.5°	424.5	419.9	406.3	398.4	393.8
70°	364.3	360.9	350.7	340.5	339.3
72.5°	311.0	306.4	300.8	291.7	287.1
75°	254.2	249.7	246.3	241.7	234.9
77.5°	199.7	197.5	195.2	191.8	188.4
80°	148.7	148.7	147.5	145.3	144.1
82.5°	105.5	106.7	103.3	101.0	101.0
85°	64.7	64.7	64.7	62.4	61.3
87.5°	31.8	28.4	28.4	26.1	26.1
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	19.64	21.25	20.00	21.57	21.88	19.30	20.92	19.67	21.23	21.55
	3H	21.40	22.85	21.77	23.18	23.54	21.01	22.47	21.39	22.80	23.16
	4H	22.04	23.42	22.44	23.77	24.14	21.65	23.03	22.05	23.37	23.75
	6H	22.51	23.78	22.92	24.14	24.53	22.13	23.40	22.54	23.76	24.15
	8H	22.66	23.87	23.08	24.26	24.66	22.28	23.50	22.71	23.88	24.28
	12H	22.76	23.92	23.19	24.30	24.73	22.38	23.55	22.81	23.93	24.36
4H	2H	20.21	21.58	20.61	21.93	22.31	19.94	21.32	20.34	21.66	22.04
	3H	22.19	23.34	22.60	23.74	24.14	21.87	23.02	22.28	23.42	23.82
	4H	22.97	24.01	23.40	24.42	24.86	22.64	23.68	23.07	24.09	24.53
	6H	23.56	24.47	24.01	24.91	25.36	23.24	24.15	23.70	24.59	25.05
	8H	23.76	24.61	24.22	25.05	25.51	23.44	24.29	23.90	24.73	25.20
	12H	23.90	24.66	24.38	25.14	25.61	23.59	24.35	24.07	24.83	25.29
8H	4H	23.25	24.10	23.71	24.54	25.01	22.96	23.81	23.42	24.25	24.72
	6H	23.96	24.67	24.45	25.15	25.63	23.68	24.39	24.18	24.88	25.35
	8H	24.23	24.87	24.74	25.37	25.86	23.95	24.59	24.46	25.09	25.58
	12H	24.45	25.01	24.96	25.50	26.06	24.17	24.73	24.68	25.22	25.78
12H	4H	23.28	24.04	23.76	24.52	24.99	23.00	23.76	23.48	24.24	24.71
	6H	24.01	24.64	24.52	25.15	25.64	23.74	24.38	24.25	24.88	25.37
	8H	24.34	24.90	24.84	25.39	25.95	24.07	24.63	24.58	25.12	25.68