

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: P242876

Luminaire Tested: S125RDRP-S850D830-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242876
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-S850D830-X4F0-XX-UDD-F-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

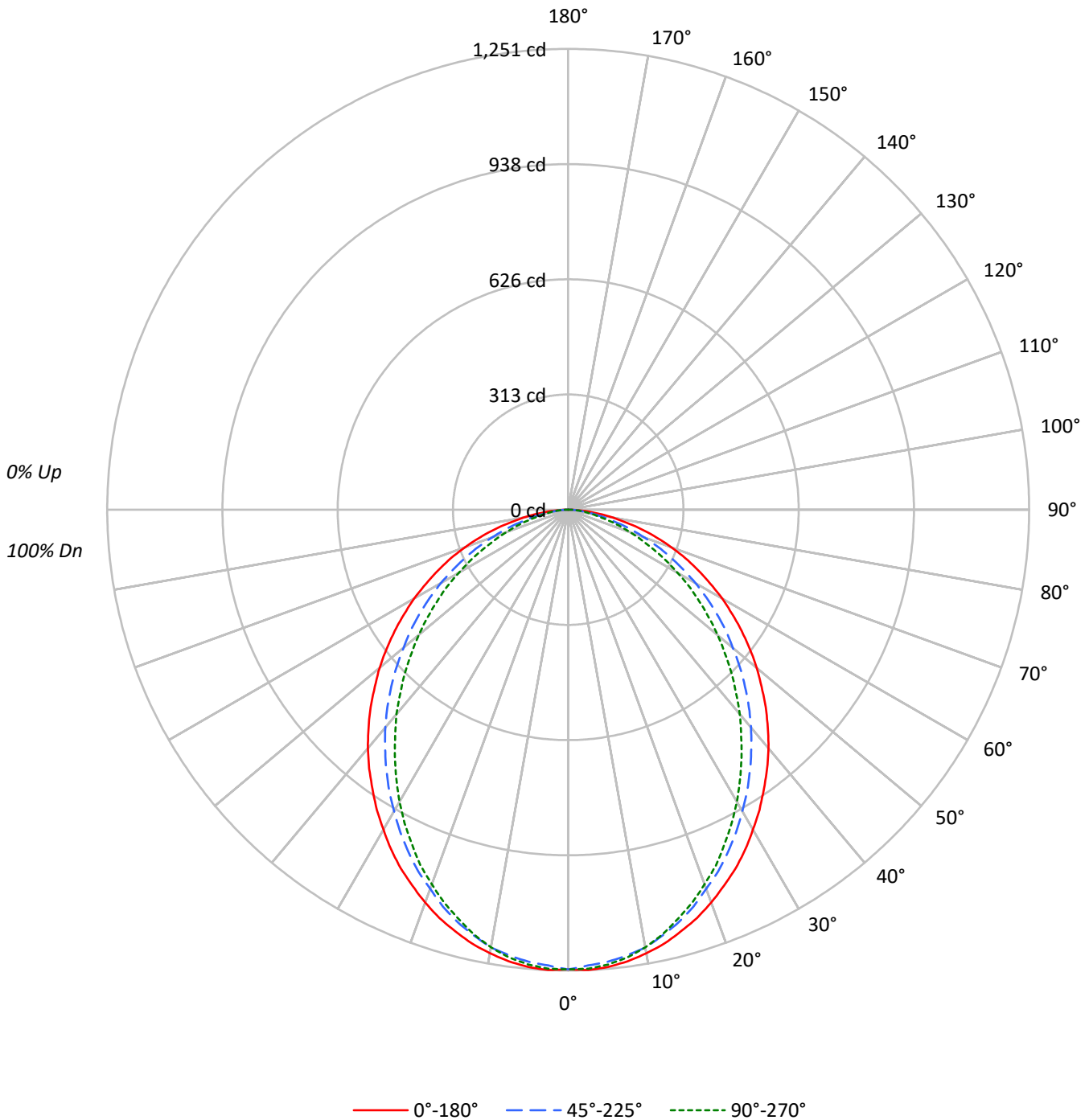
Lumens per Lamp: N/A
Luminaire Lumens: 2948.4 lumens
Efficiency: N/A
Efficacy: 111.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
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

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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°	8869	8869	8869
5°	8890	8789	8842
10°	8823	8707	8707
15°	8718	8530	8461
20°	8583	8284	8184
25°	8426	8042	7865
30°	8231	7759	7511
35°	8031	7466	7115
40°	7845	7162	6725
45°	7617	6821	6300
50°	7389	6451	5857
55°	7125	6097	5384
60°	6860	5667	4877
65°	6547	5168	4295
70°	6188	4545	3701
75°	5695	3831	3081
80°	5014	3008	2587
85°	4224	2463	2308

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7617 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.5	4.0
10°-20°	328.2	11.1
20°-30°	475.9	16.1
30°-40°	542.2	18.4
40°-50°	528.5	17.9
50°-60°	444.8	15.1
60°-70°	311.7	10.6
70°-80°	159.8	5.4
80°-90°	39.8	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°	921.6	31.3
0°-40°	1463.8	49.6
0°-60°	2437.1	82.7
0°-90°	2948.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2948.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1248	1248	1248	1248	1248	
5°	1246	1242	1232	1241	1239	118
15°	1185	1179	1159	1158	1150	334
25°	1074	1060	1026	1013	1003	495
35°	926	903	860	833	820	580
45°	758	730	679	641	627	584
55°	575	545	492	450	434	514
65°	389	357	307	270	255	385
75°	207	179	140	119	112	219
85°	52	35	30	29	28	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1247.9	1247.9	1247.9	1247.9	1247.9
2.5°	1250.8	1247.9	1238.5	1247.9	1247.0
5°	1246.0	1242.3	1231.9	1241.3	1239.4
7.5°	1236.6	1232.8	1220.6	1228.1	1226.2
10°	1222.5	1219.6	1206.5	1209.3	1206.5
12.5°	1206.5	1202.7	1183.8	1185.7	1181.0
15°	1184.8	1179.1	1159.3	1158.4	1149.9
17.5°	1162.2	1153.7	1130.1	1125.4	1118.8
20°	1134.8	1125.4	1095.2	1090.5	1082.0
22.5°	1104.7	1095.2	1063.2	1052.8	1046.2
25°	1074.5	1060.4	1025.5	1013.2	1002.9
27.5°	1040.6	1023.6	986.8	970.8	960.5
30°	1002.9	985.0	945.4	923.7	915.2
32.5°	966.1	944.4	903.9	879.4	868.1
35°	925.6	903.0	860.5	833.2	820.0
37.5°	886.9	859.6	816.2	784.2	771.0
40°	845.5	817.2	771.9	736.1	724.8
42.5°	802.1	772.9	725.8	691.8	673.9
45°	757.8	730.5	678.6	640.9	626.8
47.5°	711.6	683.3	631.5	592.9	576.8
50°	668.3	637.2	583.4	543.8	529.7
52.5°	621.1	589.1	539.1	495.8	481.6
55°	575.0	544.8	492.0	449.6	434.5
57.5°	527.8	495.8	444.9	403.4	390.2
60°	482.6	449.6	398.7	357.2	343.1
62.5°	434.5	403.4	351.6	313.9	299.7
65°	389.3	357.2	307.3	269.6	255.4
67.5°	344.0	312.0	263.9	228.1	216.8
70°	297.8	265.8	218.7	189.5	178.1
72.5°	252.6	221.5	178.1	151.7	145.2
75°	207.4	179.1	139.5	118.8	112.2
77.5°	161.2	138.6	105.6	89.5	83.9
80°	122.5	99.9	73.5	65.0	63.2
82.5°	84.8	65.0	49.0	46.2	45.2
85°	51.8	34.9	30.2	29.2	28.3
87.5°	21.7	15.1	14.1	14.1	13.2
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	18.92	20.50	19.29	20.81	21.13	17.35	18.93	17.72	19.24	19.56
	3H	20.71	22.13	21.08	22.45	22.81	18.67	20.09	19.05	20.41	20.78
	4H	21.37	22.70	21.77	23.05	23.43	19.08	20.41	19.48	20.76	21.14
	6H	21.84	23.07	22.25	23.44	23.83	19.33	20.57	19.75	20.93	21.33
	8H	21.99	23.16	22.41	23.55	23.95	19.42	20.59	19.84	20.98	21.38
	12H	22.08	23.21	22.51	23.59	24.02	19.47	20.60	19.90	20.98	21.41
4H	2H	19.31	20.65	19.71	21.00	21.37	18.04	19.38	18.44	19.72	20.10
	3H	21.30	22.41	21.71	22.81	23.21	19.54	20.65	19.95	21.05	21.45
	4H	22.08	23.08	22.51	23.50	23.93	20.04	21.04	20.47	21.45	21.89
	6H	22.67	23.55	23.13	23.99	24.45	20.38	21.25	20.84	21.70	22.15
	8H	22.87	23.68	23.33	24.13	24.59	20.49	21.31	20.95	21.75	22.22
	12H	23.01	23.74	23.49	24.21	24.68	20.58	21.31	21.06	21.79	22.26
8H	4H	22.21	23.02	22.67	23.46	23.93	20.35	21.17	20.81	21.61	22.08
	6H	22.88	23.56	23.38	24.05	24.52	20.78	21.45	21.27	21.94	22.42
	8H	23.13	23.73	23.64	24.24	24.73	20.94	21.54	21.45	22.05	22.54
	12H	23.32	23.86	23.83	24.35	24.91	21.08	21.61	21.58	22.10	22.67
12H	4H	22.20	22.93	22.68	23.41	23.88	20.39	21.12	20.87	21.60	22.07
	6H	22.88	23.48	23.39	23.99	24.48	20.83	21.43	21.34	21.94	22.43
	8H	23.16	23.70	23.67	24.19	24.75	21.03	21.57	21.54	22.06	22.62