

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: P242895

Luminaire Tested: S125RDRP-S850D935-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242895
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-S850D935-X4F0-XX-UDD-F-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

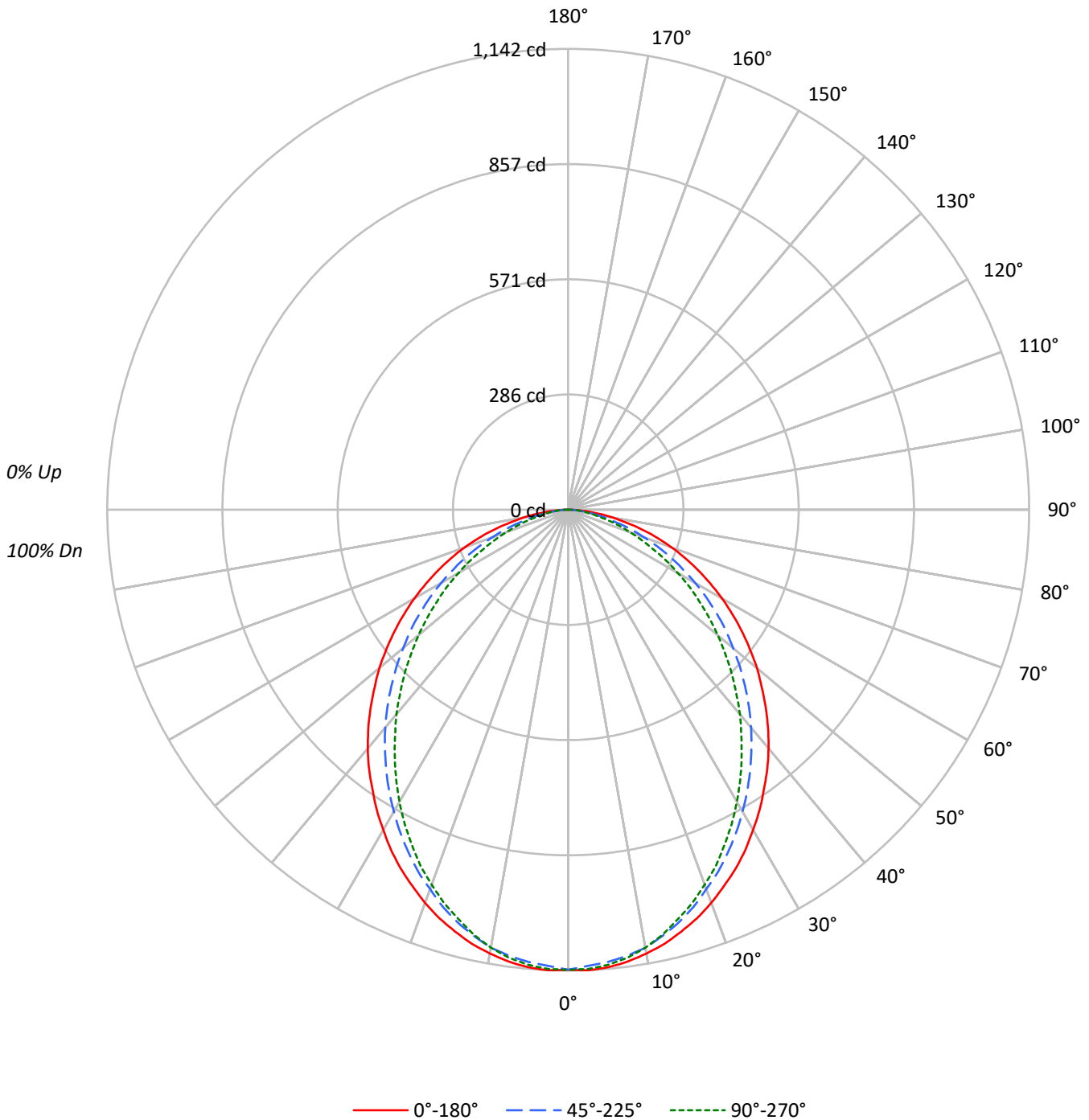
Lumens per Lamp: N/A
Luminaire Lumens: 2693.3 lumens
Efficiency: N/A
Efficacy: 102.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

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°	8102	8102	8102
5°	8120	8028	8078
10°	8059	7954	7954
15°	7964	7792	7729
20°	7840	7567	7476
25°	7697	7346	7184
30°	7518	7087	6861
35°	7336	6821	6500
40°	7165	6543	6143
45°	6958	6231	5755
50°	6749	5893	5351
55°	6508	5569	4918
60°	6266	5177	4455
65°	5980	4721	3924
70°	5654	4152	3381
75°	5201	3498	2815
80°	4580	2750	2362
85°	3865	2251	2104

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6958 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.3	4.0
10°-20°	299.8	11.1
20°-30°	434.7	16.1
30°-40°	495.3	18.4
40°-50°	482.8	17.9
50°-60°	406.3	15.1
60°-70°	284.7	10.6
70°-80°	146.0	5.4
80°-90°	36.4	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°	841.9	31.3
0°-40°	1337.2	49.6
0°-60°	2226.2	82.7
0°-90°	2693.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2693.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1140	1140	1140	1140	1140	
5°	1138	1135	1125	1134	1132	108
15°	1082	1077	1059	1058	1050	305
25°	982	969	937	926	916	452
35°	846	825	786	761	749	529
45°	692	667	620	586	573	534
55°	525	498	449	411	397	470
65°	356	326	281	246	233	352
75°	189	164	127	108	102	200
85°	47	32	28	27	26	55
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1140.0	1140.0	1140.0	1140.0	1140.0
2.5°	1142.5	1140.0	1131.4	1140.0	1139.1
5°	1138.2	1134.8	1125.3	1133.9	1132.2
7.5°	1129.6	1126.2	1115.0	1121.9	1120.2
10°	1116.7	1114.1	1102.1	1104.7	1102.1
12.5°	1102.1	1098.6	1081.4	1083.1	1078.8
15°	1082.3	1077.1	1059.0	1058.2	1050.4
17.5°	1061.6	1053.9	1032.3	1028.0	1022.0
20°	1036.6	1028.0	1000.5	996.2	988.4
22.5°	1009.1	1000.5	971.2	961.7	955.7
25°	981.5	968.6	936.8	925.6	916.1
27.5°	950.5	935.0	901.5	886.8	877.4
30°	916.1	899.7	863.6	843.8	836.0
32.5°	882.5	862.7	825.7	803.3	793.0
35°	845.5	824.8	786.1	761.1	749.1
37.5°	810.2	785.2	745.6	716.4	704.3
40°	772.3	746.5	705.2	672.4	662.1
42.5°	732.7	706.0	663.0	632.0	615.6
45°	692.2	667.3	619.9	585.5	572.6
47.5°	650.1	624.2	576.9	541.6	526.9
50°	610.4	582.0	533.0	496.8	483.9
52.5°	567.4	538.1	492.5	452.9	440.0
55°	525.2	497.7	449.4	410.7	396.9
57.5°	482.2	452.9	406.4	368.5	356.5
60°	440.8	410.7	364.2	326.3	313.4
62.5°	396.9	368.5	321.2	286.7	273.8
65°	355.6	326.3	280.7	246.2	233.3
67.5°	314.3	285.0	241.1	208.4	198.0
70°	272.1	242.8	199.8	173.1	162.7
72.5°	230.7	202.3	162.7	138.6	132.6
75°	189.4	163.6	127.4	108.5	102.5
77.5°	147.2	126.6	96.4	81.8	76.6
80°	111.9	91.3	67.2	59.4	57.7
82.5°	77.5	59.4	44.8	42.2	41.3
85°	47.4	31.9	27.6	26.7	25.8
87.5°	19.8	13.8	12.9	12.9	12.1
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	18.61	20.18	18.97	20.50	20.81	17.04	18.62	17.41	18.93	19.24
	3H	20.39	21.81	20.77	22.14	22.50	18.35	19.77	18.73	20.10	20.46
	4H	21.05	22.39	21.45	22.74	23.11	18.76	20.10	19.16	20.45	20.82
	6H	21.52	22.76	21.94	23.12	23.51	19.02	20.25	19.43	20.62	21.01
	8H	21.67	22.85	22.10	23.24	23.64	19.10	20.28	19.53	20.67	21.07
	12H	21.77	22.90	22.20	23.28	23.71	19.16	20.28	19.59	20.66	21.09
4H	2H	19.00	20.33	19.40	20.68	21.06	17.73	19.06	18.13	19.41	19.79
	3H	20.98	22.09	21.39	22.49	22.89	19.23	20.34	19.64	20.74	21.14
	4H	21.77	22.77	22.20	23.18	23.62	19.72	20.73	20.16	21.14	21.58
	6H	22.36	23.23	22.82	23.67	24.13	20.07	20.94	20.52	21.38	21.84
	8H	22.55	23.37	23.01	23.81	24.28	20.18	20.99	20.64	21.44	21.90
	12H	22.69	23.42	23.17	23.90	24.37	20.26	20.99	20.74	21.47	21.94
8H	4H	21.89	22.71	22.35	23.15	23.62	20.04	20.85	20.50	21.30	21.76
	6H	22.57	23.24	23.06	23.73	24.21	20.46	21.14	20.96	21.63	22.10
	8H	22.81	23.42	23.33	23.93	24.41	20.62	21.23	21.13	21.74	22.22
	12H	23.01	23.55	23.52	24.04	24.60	20.76	21.30	21.27	21.79	22.35
12H	4H	21.88	22.62	22.37	23.09	23.56	20.08	20.81	20.56	21.28	21.75
	6H	22.56	23.17	23.07	23.68	24.16	20.51	21.12	21.02	21.63	22.11
	8H	22.85	23.38	23.36	23.88	24.44	20.72	21.26	21.23	21.75	22.31