

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: P242782

Luminaire Tested: S125DRP-S850D840-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242782
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-12)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125DRP-S850D840-X4F0-XX-UDD-F-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

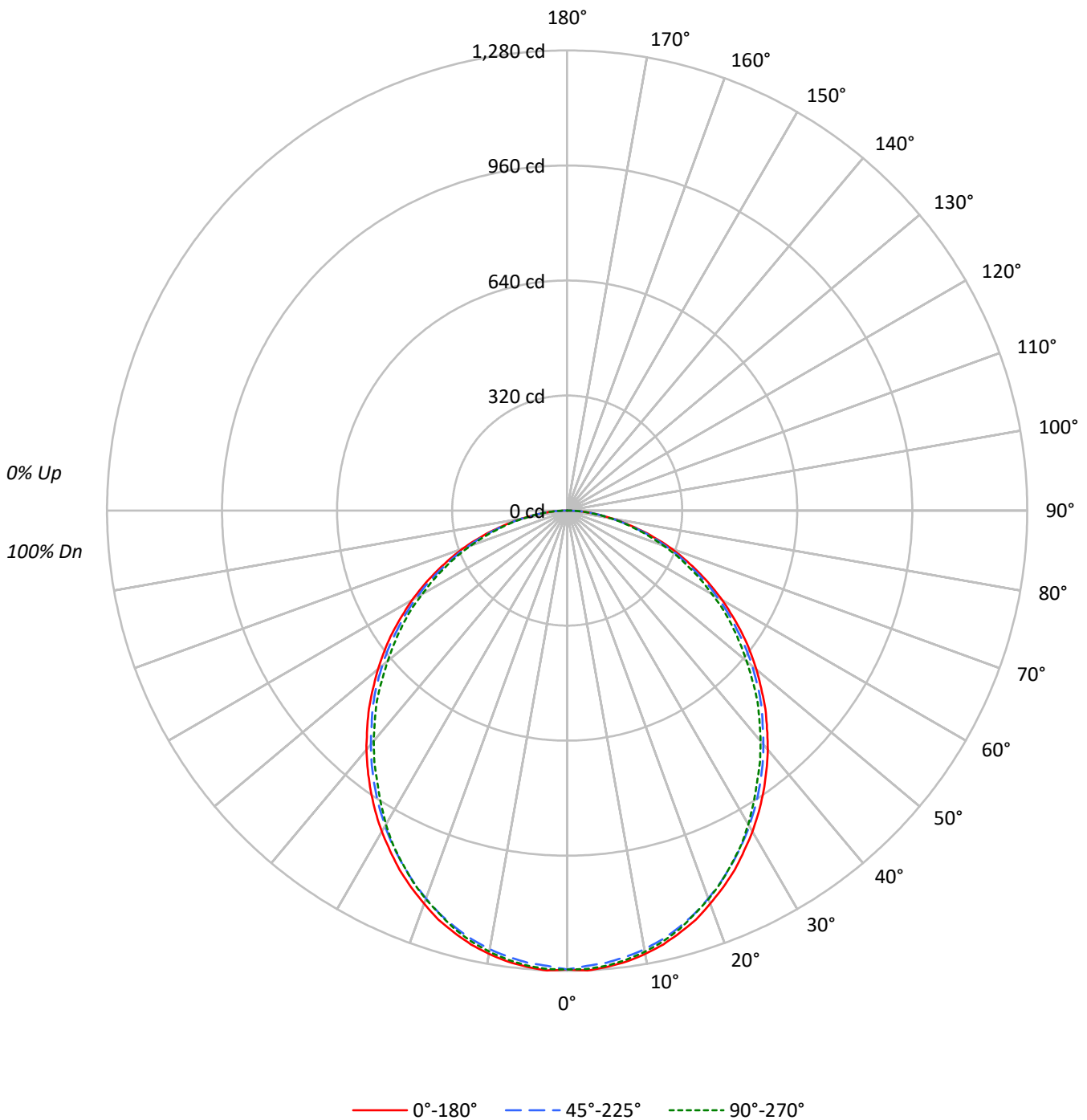
Lumens per Lamp: N/A
Luminaire Lumens: 3322.3 lumens
Efficiency: N/A
Efficacy: 125.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.18 / 1.3
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
Input Voltage (V): 120
Input Current (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	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					100			
1	109	104	100	96	106	102	98	95	98	94	92	94	91	89	90	88	86	84					84			
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	72	70					70			
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	59					59			
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51					51			
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44					44			
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	46	41	39					39			
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34					34			
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	31					31			
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28					28			
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25					25			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9073	9073	9073
5°	9092	9006	9064
10°	9037	8943	8994
15°	8939	8835	8872
20°	8799	8684	8700
25°	8648	8506	8498
30°	8462	8313	8271
35°	8263	8105	7991
40°	8058	7880	7768
45°	7836	7674	7521
50°	7593	7426	7203
55°	7358	7145	6945
60°	7077	6861	6617
65°	6742	6522	6301
70°	6421	6128	5918
75°	5852	5657	5462
80°	5206	5124	5002
85°	4526	4616	4363

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7836 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.4	3.6
10°-20°	340.2	10.2
20°-30°	502.3	15.1
30°-40°	586.0	17.6
40°-50°	588.6	17.7
50°-60°	516.7	15.6
60°-70°	384.8	11.6
70°-80°	219.8	6.6
80°-90°	63.5	1.9
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°	963.0	29.0
0°-40°	1549.0	46.6
0°-60°	2654.2	79.9
0°-90°	3322.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3322.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1276	1276	1276	1276	1276	
5°	1274	1272	1262	1271	1270	121
15°	1215	1212	1201	1206	1206	343
25°	1103	1098	1085	1087	1084	507
35°	952	948	934	929	921	596
45°	780	776	764	751	748	601
55°	594	591	577	568	560	530
65°	401	399	388	379	375	398
75°	213	211	206	203	199	227
85°	56	57	57	56	54	65
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1276.5	1276.5	1276.5	1276.5	1276.5
2.5°	1280.5	1277.5	1267.4	1277.5	1276.5
5°	1274.4	1272.4	1262.3	1271.4	1270.4
7.5°	1265.4	1263.3	1252.2	1261.3	1260.3
10°	1252.2	1250.2	1239.1	1247.2	1246.2
12.5°	1236.1	1232.0	1221.9	1228.0	1228.0
15°	1214.9	1211.8	1200.7	1205.8	1205.8
17.5°	1192.7	1187.6	1176.5	1182.6	1177.5
20°	1163.4	1161.3	1148.2	1155.3	1150.2
22.5°	1134.1	1130.0	1117.9	1122.0	1118.9
25°	1102.8	1097.7	1084.6	1086.6	1083.6
27.5°	1066.4	1063.4	1050.3	1051.3	1048.2
30°	1031.1	1028.0	1012.9	1010.9	1007.8
32.5°	992.7	987.6	974.5	970.5	964.4
35°	952.3	948.3	934.1	929.1	921.0
37.5°	910.9	905.8	892.7	885.7	880.6
40°	868.5	863.4	849.3	840.2	837.2
42.5°	823.0	819.0	804.9	796.8	791.7
45°	779.6	775.6	763.5	751.3	748.3
47.5°	732.2	733.2	718.0	705.9	698.8
50°	686.7	683.7	671.6	658.4	651.4
52.5°	640.3	638.2	625.1	614.0	605.9
55°	593.8	590.8	576.6	567.5	560.5
57.5°	544.3	543.3	531.2	519.1	516.0
60°	497.9	493.8	482.7	472.6	465.5
62.5°	449.4	446.4	437.3	426.2	421.1
65°	400.9	398.9	387.8	378.7	374.7
67.5°	353.5	349.4	341.3	333.3	331.2
70°	309.0	304.0	294.9	288.8	284.8
72.5°	260.5	257.5	252.5	245.4	241.4
75°	213.1	211.1	206.0	203.0	198.9
77.5°	168.6	167.6	164.6	162.6	159.6
80°	127.2	127.2	125.2	124.2	122.2
82.5°	90.9	88.9	88.9	86.8	86.8
85°	55.5	56.6	56.6	55.5	53.5
87.5°	27.3	27.3	26.3	26.3	24.2
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	19.01	20.63	19.38	20.94	21.26	18.68	20.30	19.05	20.62	20.93
	3H	20.78	22.24	21.16	22.57	22.93	20.42	21.88	20.79	22.20	22.57
	4H	21.44	22.81	21.84	23.16	23.54	21.06	22.44	21.46	22.79	23.16
	6H	21.91	23.19	22.32	23.55	23.95	21.55	22.82	21.96	23.19	23.58
	8H	22.07	23.29	22.50	23.68	24.08	21.71	22.93	22.13	23.32	23.72
	12H	22.18	23.34	22.61	23.73	24.16	21.82	22.99	22.25	23.37	23.80
4H	2H	19.59	20.97	19.99	21.31	21.69	19.33	20.71	19.73	21.06	21.43
	3H	21.58	22.74	21.99	23.14	23.54	21.28	22.44	21.69	22.83	23.23
	4H	22.37	23.42	22.80	23.83	24.27	22.06	23.10	22.49	23.51	23.95
	6H	22.98	23.89	23.43	24.33	24.79	22.67	23.58	23.13	24.02	24.48
	8H	23.18	24.04	23.64	24.48	24.95	22.88	23.73	23.34	24.18	24.64
	12H	23.34	24.10	23.82	24.58	25.05	23.04	23.80	23.52	24.28	24.75
8H	4H	22.66	23.51	23.12	23.95	24.42	22.38	23.23	22.84	23.68	24.14
	6H	23.39	24.10	23.88	24.59	25.06	23.12	23.83	23.61	24.32	24.79
	8H	23.67	24.30	24.18	24.81	25.30	23.40	24.04	23.91	24.55	25.03
	12H	23.90	24.46	24.40	24.95	25.51	23.64	24.20	24.14	24.69	25.25
12H	4H	22.69	23.46	23.17	23.93	24.40	22.42	23.18	22.90	23.66	24.13
	6H	23.44	24.08	23.95	24.58	25.07	23.18	23.82	23.69	24.33	24.81
	8H	23.78	24.34	24.28	24.83	25.39	23.52	24.09	24.03	24.58	25.14