

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: P242792

Luminaire Tested: S125DRP-S850D935-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242792
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-S850D935-X4F0-XX-UDD-F-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

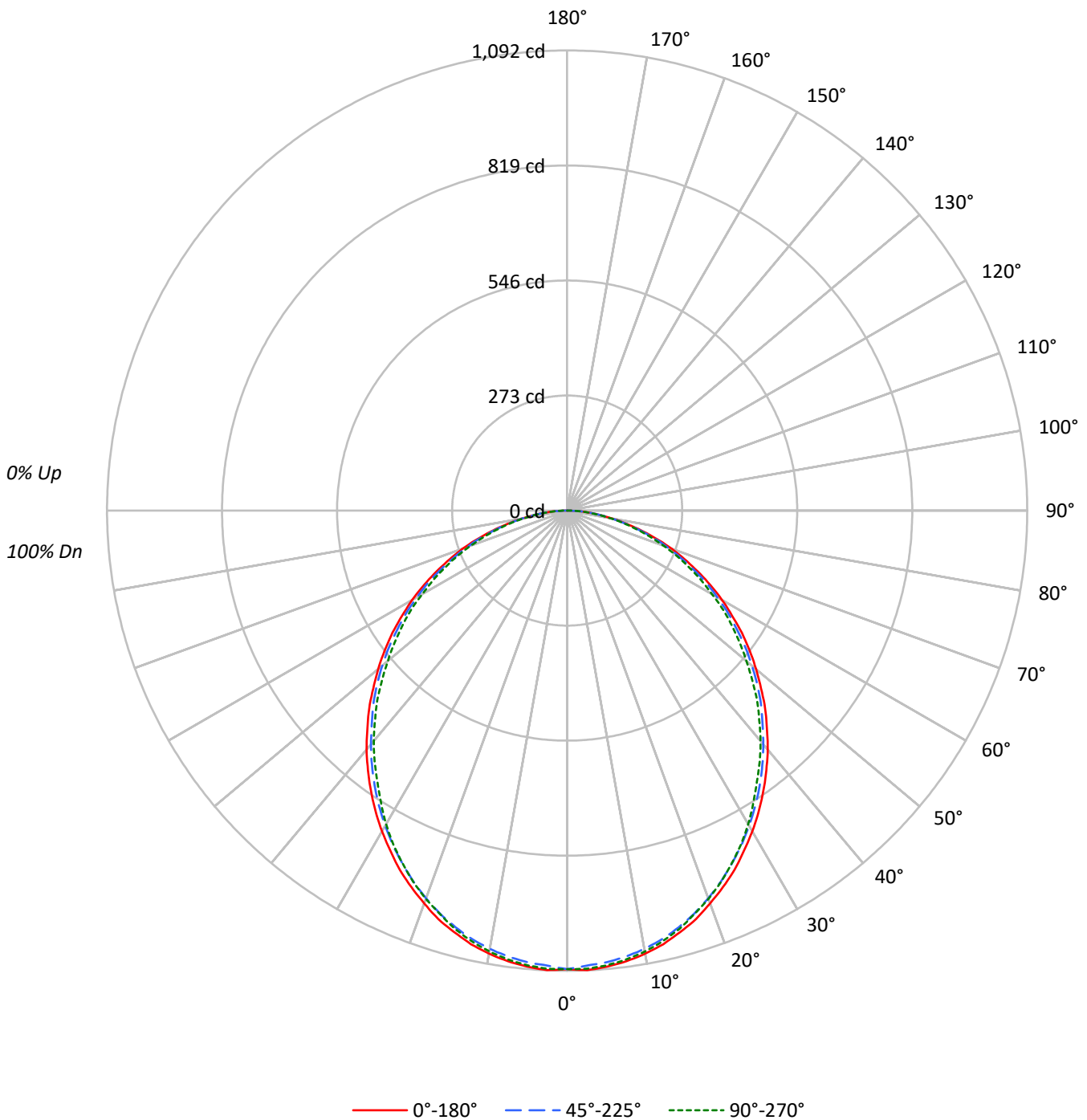
Lumens per Lamp: N/A
Luminaire Lumens: 2832.6 lumens
Efficiency: N/A
Efficacy: 107.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.18 / 1.3
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
Input Voltage (V): 120
Input Current (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	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°	7735	7735	7735
5°	7752	7678	7727
10°	7705	7624	7668
15°	7621	7532	7564
20°	7502	7405	7418
25°	7373	7252	7245
30°	7215	7087	7052
35°	7044	6910	6813
40°	6870	6718	6623
45°	6681	6542	6413
50°	6474	6331	6140
55°	6274	6092	5922
60°	6034	5851	5642
65°	5748	5560	5371
70°	5476	5224	5046
75°	4990	4822	4657
80°	4441	4371	4265
85°	3865	3931	3719

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6681 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.7	3.6
10°-20°	290.1	10.2
20°-30°	428.2	15.1
30°-40°	499.6	17.6
40°-50°	501.8	17.7
50°-60°	440.5	15.6
60°-70°	328.1	11.6
70°-80°	187.4	6.6
80°-90°	54.1	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°	821.0	29.0
0°-40°	1320.7	46.6
0°-60°	2263.0	79.9
0°-90°	2832.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2832.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1088	1088	1088	1088	1088	
5°	1087	1085	1076	1084	1083	103
15°	1036	1033	1024	1028	1028	292
25°	940	936	925	926	924	433
35°	812	808	796	792	785	508
45°	665	661	651	641	638	512
55°	506	504	492	484	478	452
65°	342	340	331	323	319	339
75°	182	180	176	173	170	193
85°	47	48	48	47	46	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1088.3	1088.3	1088.3	1088.3	1088.3
2.5°	1091.7	1089.2	1080.6	1089.2	1088.3
5°	1086.6	1084.9	1076.2	1084.0	1083.1
7.5°	1078.8	1077.1	1067.6	1075.4	1074.5
10°	1067.6	1065.9	1056.4	1063.3	1062.5
12.5°	1053.9	1050.4	1041.8	1047.0	1047.0
15°	1035.8	1033.2	1023.7	1028.0	1028.0
17.5°	1016.8	1012.5	1003.1	1008.2	1003.9
20°	991.9	990.1	979.0	985.0	980.7
22.5°	966.9	963.5	953.1	956.6	954.0
25°	940.2	935.9	924.7	926.4	923.9
27.5°	909.2	906.6	895.4	896.3	893.7
30°	879.1	876.5	863.6	861.9	859.3
32.5°	846.4	842.1	830.9	827.4	822.3
35°	811.9	808.5	796.4	792.1	785.2
37.5°	776.6	772.3	761.1	755.1	750.8
40°	740.5	736.2	724.1	716.4	713.8
42.5°	701.7	698.3	686.2	679.3	675.0
45°	664.7	661.2	650.9	640.6	638.0
47.5°	624.2	625.1	612.2	601.8	595.8
50°	585.5	582.9	572.6	561.4	555.3
52.5°	545.9	544.2	533.0	523.5	516.6
55°	506.3	503.7	491.6	483.9	477.9
57.5°	464.1	463.2	452.9	442.6	440.0
60°	424.5	421.0	411.6	402.9	396.9
62.5°	383.1	380.6	372.8	363.3	359.0
65°	341.8	340.1	330.6	322.9	319.4
67.5°	301.3	297.9	291.0	284.1	282.4
70°	263.5	259.2	251.4	246.2	242.8
72.5°	222.1	219.6	215.2	209.2	205.8
75°	181.7	179.9	175.6	173.1	169.6
77.5°	143.8	142.9	140.3	138.6	136.0
80°	108.5	108.5	106.8	105.9	104.2
82.5°	77.5	75.8	75.8	74.0	74.0
85°	47.4	48.2	48.2	47.4	45.6
87.5°	23.2	23.2	22.4	22.4	20.7
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	18.46	20.08	18.82	20.39	20.70	18.13	19.75	18.50	20.06	20.38
	3H	20.23	21.69	20.60	22.02	22.38	19.86	21.32	20.24	21.65	22.01
	4H	20.88	22.26	21.28	22.61	22.98	20.51	21.88	20.91	22.23	22.61
	6H	21.36	22.64	21.77	23.00	23.39	20.99	22.27	21.40	22.63	23.03
	8H	21.52	22.74	21.94	23.12	23.52	21.15	22.37	21.58	22.76	23.16
	12H	21.62	22.79	22.05	23.17	23.60	21.27	22.43	21.69	22.81	23.24
4H	2H	19.04	20.41	19.43	20.76	21.14	18.78	20.15	19.17	20.50	20.88
	3H	21.03	22.19	21.44	22.58	22.98	20.73	21.88	21.14	22.28	22.68
	4H	21.82	22.86	22.25	23.27	23.71	21.50	22.55	21.93	22.96	23.40
	6H	22.43	23.34	22.88	23.78	24.23	22.12	23.03	22.57	23.47	23.93
	8H	22.63	23.48	23.09	23.93	24.39	22.33	23.18	22.79	23.62	24.09
	12H	22.78	23.55	23.26	24.03	24.50	22.48	23.25	22.96	23.72	24.19
8H	4H	22.10	22.96	22.56	23.40	23.87	21.83	22.68	22.29	23.12	23.59
	6H	22.83	23.54	23.33	24.03	24.51	22.57	23.28	23.06	23.76	24.24
	8H	23.11	23.75	23.62	24.26	24.74	22.85	23.49	23.36	23.99	24.48
	12H	23.34	23.91	23.85	24.40	24.96	23.08	23.65	23.59	24.14	24.70
12H	4H	22.13	22.90	22.61	23.38	23.85	21.86	22.63	22.34	23.11	23.57
	6H	22.88	23.52	23.39	24.03	24.52	22.63	23.27	23.14	23.77	24.26
	8H	23.22	23.79	23.73	24.28	24.84	22.97	23.53	23.48	24.02	24.58