

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: P242840

Luminaire Tested: S125DRP-S375D830-X4F0-XX-UDD-D-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242840
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-17)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125DRP-S375D830-X4F0-XX-UDD-D-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

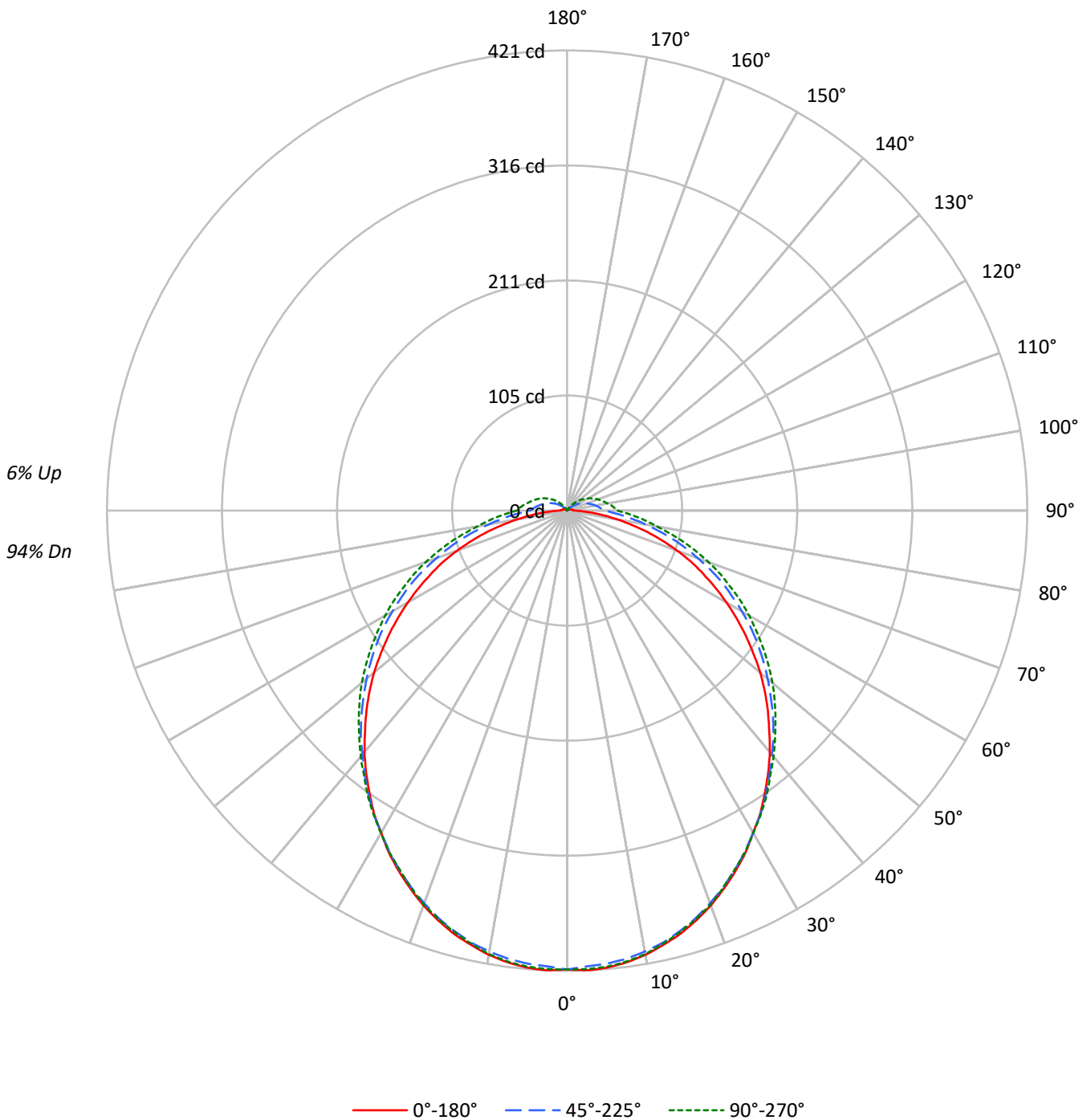
Lumens per Lamp: N/A
Luminaire Lumens: 1300.3 lumens
Efficiency: N/A
Efficacy: 112.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')
CIE Type: Direct

Input Watts (W): 11.6
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	0	
RCR																						
0	118	118	118	118	114	114	114	114	108	108	108	102	102	102	96	96	96	94				
1	106	101	96	92	103	98	94	90	93	89	86	88	85	82	83	81	79	76				
2	96	88	80	74	93	85	78	73	81	75	70	76	72	68	72	69	65	63				
3	88	77	68	61	84	75	67	60	71	64	59	67	61	57	64	59	55	53				
4	80	68	59	52	77	66	58	51	63	55	50	60	53	48	57	51	47	45				
5	74	60	51	44	71	59	50	44	56	49	43	53	47	42	51	45	41	39				
6	68	54	45	39	66	53	45	38	51	43	38	48	42	37	46	40	36	34				
7	63	49	40	34	61	48	40	34	46	39	33	44	37	33	42	36	32	30				
8	59	45	36	30	57	44	36	30	42	35	30	40	34	29	39	33	29	27				
9	55	41	33	27	53	40	33	27	39	32	27	37	31	26	36	30	26	24				
10	51	38	30	25	50	37	30	25	36	29	24	35	28	24	33	28	23	22				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2984	2984	2984
5°	2989	2926	2934
10°	2968	2871	2865
15°	2932	2807	2779
20°	2885	2727	2692
25°	2828	2642	2586
30°	2759	2549	2490
35°	2694	2463	2401
40°	2629	2373	2312
45°	2555	2296	2234
50°	2485	2211	2163
55°	2400	2132	2079
60°	2306	2040	1995
65°	2210	1945	1900
70°	2099	1815	1802
75°	1924	1689	1681
80°	1696	1535	1547
85°	1479	1424	1495

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2555 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.7	3.1
10°-20°	112.8	8.7
20°-30°	167.7	12.9
30°-40°	198.6	15.3
40°-50°	205.3	15.8
50°-60°	189.1	14.5
60°-70°	152.9	11.8
70°-80°	102.3	7.9
80°-90°	52.9	4.1
90°-100°	29.8	2.3
100°-110°	22.0	1.7
110°-120°	14.7	1.1
120°-130°	8.3	0.6
130°-140°	3.6	0.3
140°-150°	0.7	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	320.2	24.6
0°-40°	518.8	39.9
0°-60°	913.2	70.2
0°-90°	1221.2	93.9
90°-120°	66.4	5.1
90°-150°	79.1	6.1
90°-180°	79.0	6.1
0°-180°	1300.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	420	420	420	420	420	
5°	420	419	416	419	419	40
15°	401	401	398	401	399	113
25°	364	365	363	365	363	168
35°	315	318	317	318	318	197
45°	260	264	266	269	270	200
55°	200	206	213	217	219	178
65°	138	147	157	163	165	136
75°	76	86	100	108	110	80
85°	23	36	51	60	63	24
90°	7	20	34	43	46	5
95°	5	16	30	39	42	4
105°	4	10	23	31	34	4
115°	2	5	16	24	26	2
125°	2	1	10	16	18	1
135°	1	0	3	9	11	1
145°	0	0	0	2	4	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	419.8	419.8	419.8	419.8	419.8
2.5°	421.0	420.2	417.3	420.2	419.8
5°	419.8	418.9	416.1	419.4	418.9
7.5°	416.9	416.5	413.6	416.5	416.1
10°	412.8	412.8	409.5	412.4	411.9
12.5°	407.0	407.4	405.0	407.0	405.8
15°	400.8	401.2	398.4	400.8	399.2
17.5°	393.0	393.8	391.0	393.0	391.8
20°	384.4	385.2	382.3	383.6	383.6
22.5°	374.5	376.1	372.9	374.5	373.3
25°	364.2	365.4	363.0	364.6	362.6
27.5°	353.1	354.7	351.9	353.1	352.3
30°	340.3	342.8	340.3	341.2	340.8
32.5°	328.8	330.9	329.2	330.1	329.6
35°	315.2	318.1	316.9	318.1	318.1
37.5°	302.1	304.5	304.1	305.8	305.4
40°	288.5	291.8	291.4	293.0	293.8
42.5°	273.7	278.2	279.4	281.5	281.5
45°	259.7	264.2	266.3	269.1	269.6
47.5°	245.3	249.4	252.7	256.8	257.6
50°	230.5	235.0	239.5	244.0	245.3
52.5°	214.8	220.6	226.3	231.3	232.1
55°	199.6	206.2	212.8	217.3	218.9
57.5°	184.0	191.8	199.2	204.1	205.4
60°	168.3	176.5	184.8	191.0	192.2
62.5°	153.1	161.3	170.4	177.4	179.0
65°	137.5	146.9	156.8	163.0	164.6
67.5°	123.0	132.1	142.0	149.4	151.4
70°	107.0	116.5	127.2	135.0	137.5
72.5°	91.4	101.2	113.2	121.8	123.5
75°	75.7	86.4	99.6	107.8	109.9
77.5°	60.5	72.8	85.2	94.2	95.9
80°	46.5	58.8	72.8	81.9	83.5
82.5°	33.7	46.9	61.3	70.0	73.3
85°	22.6	36.2	50.6	59.7	63.0
87.5°	14.4	27.6	41.6	51.0	53.9
90°	6.6	19.8	33.7	43.2	46.1
92.5°	5.8	17.7	32.1	41.2	44.0
95°	5.3	16.0	30.0	39.1	42.0
97.5°	4.9	14.8	28.4	37.0	39.9
100°	4.5	13.2	26.3	35.0	37.4
102.5°	4.1	11.9	24.7	32.9	35.4
105°	3.7	10.3	22.6	30.9	33.7
107.5°	3.3	9.1	21.0	29.2	31.7
110°	2.9	7.8	19.3	27.2	30.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.9	6.6	17.7	25.1	28.0
115°	2.5	5.3	16.0	23.5	25.9
117.5°	2.1	4.1	14.4	21.4	24.3
120°	2.1	3.3	12.8	19.8	22.2
122.5°	1.6	2.1	11.1	17.7	20.2
125°	1.6	1.2	9.5	16.0	18.1
127.5°	1.2	0.8	7.8	14.0	16.5
130°	1.2	0.8	6.6	12.3	14.4
132.5°	0.8	0.8	4.9	10.7	12.3
135°	0.8	0.4	3.3	8.6	10.7
137.5°	0.8	0.4	2.1	7.0	8.6
140°	0.4	0.4	0.8	5.3	7.0
142.5°	0.4	0.0	0.0	3.7	5.3
145°	0.4	0.0	0.0	2.1	3.7
147.5°	0.0	0.0	0.0	0.8	1.6
150°	0.0	0.0	0.0	0.0	0.4
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	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	13.72	15.25	14.17	15.69	16.15	14.76	16.29	15.22	16.73	17.19
	3H	15.37	16.76	15.84	17.21	17.72	16.94	18.33	17.41	18.78	19.28
	4H	15.94	17.25	16.43	17.72	18.24	17.90	19.22	18.39	19.68	20.20
	6H	16.32	17.54	16.82	18.02	18.56	18.80	20.02	19.30	20.50	21.04
	8H	16.42	17.59	16.94	18.10	18.64	19.23	20.40	19.75	20.91	21.45
	12H	16.48	17.60	17.00	18.10	18.67	19.69	20.81	20.21	21.31	21.88
4H	2H	14.48	15.80	14.97	16.26	16.78	15.29	16.61	15.78	17.08	17.60
	3H	16.36	17.47	16.86	17.99	18.53	17.68	18.80	18.19	19.31	19.86
	4H	17.06	18.08	17.58	18.60	19.18	18.80	19.82	19.32	20.34	20.91
	6H	17.57	18.46	18.11	19.01	19.60	19.86	20.76	20.41	21.31	21.90
	8H	17.72	18.56	18.27	19.11	19.71	20.38	21.22	20.93	21.77	22.37
	12H	17.82	18.58	18.39	19.16	19.77	20.94	21.70	21.51	22.28	22.89
8H	4H	17.54	18.38	18.09	18.93	19.53	19.06	19.90	19.61	20.45	21.05
	6H	18.21	18.92	18.79	19.51	20.12	20.28	20.99	20.86	21.58	22.19
	8H	18.45	19.08	19.04	19.69	20.31	20.92	21.56	21.51	22.16	22.78
	12H	18.63	19.19	19.22	19.79	20.47	21.63	22.20	22.23	22.79	23.48
12H	4H	17.64	18.40	18.21	18.98	19.59	19.08	19.84	19.65	20.42	21.02
	6H	18.37	19.01	18.96	19.61	20.23	20.33	20.97	20.92	21.57	22.19
	8H	18.69	19.25	19.28	19.85	20.53	21.03	21.60	21.63	22.19	22.88