

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: P242845

Luminaire Tested: S125DRP-S375D835-X4F0-XX-UDD-D-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242845
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-S375D835-X4F0-XX-UDD-D-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

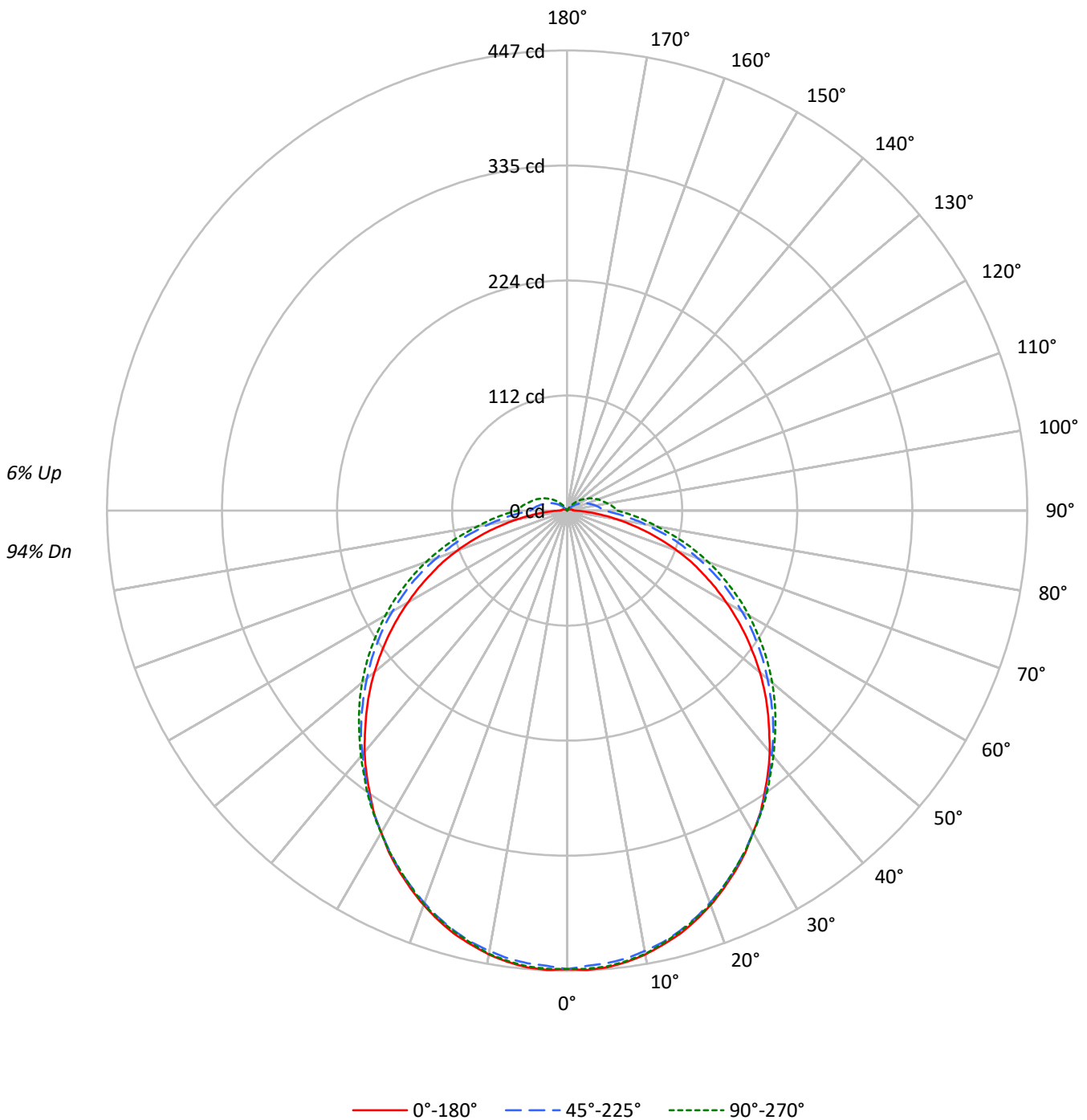
Lumens per Lamp: N/A
Luminaire Lumens: 1379.6 lumens
Efficiency: N/A
Efficacy: 118.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')
CIE Type: Direct

Input Watts (W): 11.6
Input Voltage (V): 120
Input Current (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	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°	3166	3166	3166
5°	3172	3104	3113
10°	3148	3046	3040
15°	3111	2978	2948
20°	3060	2893	2856
25°	3000	2803	2744
30°	2927	2704	2642
35°	2859	2613	2548
40°	2790	2517	2453
45°	2711	2435	2369
50°	2636	2346	2294
55°	2546	2261	2207
60°	2448	2164	2117
65°	2344	2064	2015
70°	2227	1925	1911
75°	2041	1792	1783
80°	1798	1630	1641
85°	1571	1512	1585

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2711 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.1	3.1
10°-20°	119.6	8.7
20°-30°	177.9	12.9
30°-40°	210.7	15.3
40°-50°	217.8	15.8
50°-60°	200.6	14.5
60°-70°	162.2	11.8
70°-80°	108.5	7.9
80°-90°	56.1	4.1
90°-100°	31.6	2.3
100°-110°	23.3	1.7
110°-120°	15.6	1.1
120°-130°	8.8	0.6
130°-140°	3.9	0.3
140°-150°	0.8	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	339.7	24.6
0°-40°	550.4	39.9
0°-60°	968.8	70.2
0°-90°	1295.7	93.9
90°-120°	70.5	5.1
90°-150°	83.9	6.1
90°-180°	84.0	6.1
0°-180°	1379.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	445	445	445	445	445	
5°	445	444	441	445	444	42
15°	425	426	423	425	424	120
25°	386	388	385	387	385	178
35°	334	338	336	338	338	209
45°	276	280	282	286	286	213
55°	212	219	226	230	232	189
65°	146	156	166	173	175	145
75°	80	92	106	114	117	85
85°	24	38	54	63	67	25
90°	7	21	36	46	49	5
95°	6	17	32	42	44	4
105°	4	11	24	33	36	4
115°	3	6	17	25	28	3
125°	2	1	10	17	19	1
135°	1	0	4	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°	445.4	445.4	445.4	445.4	445.4
2.5°	446.7	445.8	442.7	445.8	445.4
5°	445.4	444.5	441.4	444.9	444.5
7.5°	442.3	441.9	438.8	441.9	441.4
10°	437.9	437.9	434.4	437.5	437.1
12.5°	431.8	432.3	429.6	431.8	430.5
15°	425.3	425.7	422.7	425.3	423.5
17.5°	417.0	417.8	414.8	417.0	415.7
20°	407.8	408.7	405.6	406.9	406.9
22.5°	397.3	399.1	395.6	397.3	396.0
25°	386.4	387.7	385.1	386.8	384.7
27.5°	374.6	376.4	373.3	374.6	373.7
30°	361.1	363.7	361.1	362.0	361.5
32.5°	348.9	351.0	349.3	350.2	349.7
35°	334.5	337.5	336.2	337.5	337.5
37.5°	320.5	323.1	322.7	324.4	324.0
40°	306.1	309.6	309.1	310.9	311.7
42.5°	290.4	295.2	296.5	298.7	298.7
45°	275.5	280.3	282.5	285.6	286.0
47.5°	260.2	264.6	268.1	272.5	273.3
50°	244.5	249.3	254.1	258.9	260.2
52.5°	227.9	234.0	240.1	245.4	246.3
55°	211.8	218.7	225.7	230.5	232.3
57.5°	195.2	203.5	211.3	216.6	217.9
60°	178.6	187.3	196.0	202.6	203.9
62.5°	162.4	171.2	180.8	188.2	189.9
65°	145.8	155.9	166.4	172.9	174.6
67.5°	130.6	140.2	150.6	158.5	160.7
70°	113.5	123.6	134.9	143.2	145.8
72.5°	96.9	107.4	120.1	129.2	131.0
75°	80.3	91.7	105.7	114.4	116.6
77.5°	64.2	77.3	90.4	100.0	101.7
80°	49.3	62.4	77.3	86.9	88.6
82.5°	35.8	49.8	65.1	74.2	77.7
85°	24.0	38.4	53.7	63.3	66.8
87.5°	15.3	29.3	44.1	54.1	57.2
90°	7.0	21.0	35.8	45.8	48.9
92.5°	6.1	18.8	34.1	43.7	46.7
95°	5.7	17.0	31.9	41.5	44.5
97.5°	5.2	15.7	30.1	39.3	42.4
100°	4.8	14.0	27.9	37.1	39.7
102.5°	4.4	12.7	26.2	34.9	37.5
105°	3.9	10.9	24.0	32.7	35.8
107.5°	3.5	9.6	22.3	31.0	33.6
110°	3.1	8.3	20.5	28.8	31.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.1	7.0	18.8	26.6	29.7
115°	2.6	5.7	17.0	24.9	27.5
117.5°	2.2	4.4	15.3	22.7	25.8
120°	2.2	3.5	13.5	21.0	23.6
122.5°	1.7	2.2	11.8	18.8	21.4
125°	1.7	1.3	10.0	17.0	19.2
127.5°	1.3	0.9	8.3	14.8	17.5
130°	1.3	0.9	7.0	13.1	15.3
132.5°	0.9	0.9	5.2	11.4	13.1
135°	0.9	0.4	3.5	9.2	11.4
137.5°	0.9	0.4	2.2	7.4	9.2
140°	0.4	0.4	0.9	5.7	7.4
142.5°	0.4	0.0	0.0	3.9	5.7
145°	0.4	0.0	0.0	2.2	3.9
147.5°	0.0	0.0	0.0	0.9	1.7
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	13.92	15.45	14.38	15.89	16.36	14.96	16.50	15.42	16.94	17.40
	3H	15.57	16.97	16.04	17.42	17.92	17.14	18.54	17.61	18.99	19.49
	4H	16.14	17.46	16.63	17.93	18.45	18.10	19.42	18.60	19.89	20.41
	6H	16.52	17.75	17.03	18.23	18.76	19.00	20.23	19.51	20.71	21.24
	8H	16.63	17.80	17.14	18.30	18.84	19.44	20.61	19.95	21.11	21.65
	12H	16.69	17.81	17.21	18.31	18.88	19.89	21.02	20.42	21.52	22.09
4H	2H	14.68	16.00	15.18	16.47	16.99	15.50	16.82	15.99	17.28	17.80
	3H	16.56	17.68	17.07	18.19	18.73	17.89	19.01	18.39	19.52	20.06
	4H	17.27	18.28	17.79	18.81	19.38	19.00	20.02	19.53	20.55	21.12
	6H	17.77	18.67	18.32	19.22	19.81	20.07	20.96	20.61	21.51	22.10
	8H	17.92	18.77	18.48	19.32	19.92	20.59	21.43	21.14	21.98	22.58
	12H	18.03	18.79	18.60	19.37	19.97	21.14	21.91	21.72	22.48	23.09
8H	4H	17.75	18.59	18.30	19.14	19.74	19.26	20.10	19.81	20.65	21.26
	6H	18.41	19.12	19.00	19.71	20.32	20.48	21.19	21.07	21.79	22.39
	8H	18.65	19.29	19.25	19.89	20.51	21.12	21.76	21.72	22.36	22.99
	12H	18.83	19.40	19.43	19.99	20.68	21.84	22.40	22.43	22.99	23.68
12H	4H	17.85	18.61	18.42	19.19	19.79	19.28	20.04	19.85	20.62	21.23
	6H	18.58	19.22	19.17	19.82	20.44	20.53	21.17	21.13	21.78	22.40
	8H	18.89	19.46	19.49	20.05	20.74	21.24	21.81	21.84	22.40	23.09