

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: G3-1802-639-15

Luminaire Tested: **S123DR-S775D835-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: G3-1802-639-15
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DR-S775D835-X4F0-XX-UDD-D-W
Description: DEFINE 3 DIRECT RECESSED WITH SATIN DROP DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3085.2 lumens
Efficiency: N/A
Efficacy: 116.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.23' x L: 3.88' x H: 0.08')
CIE Type: Direct

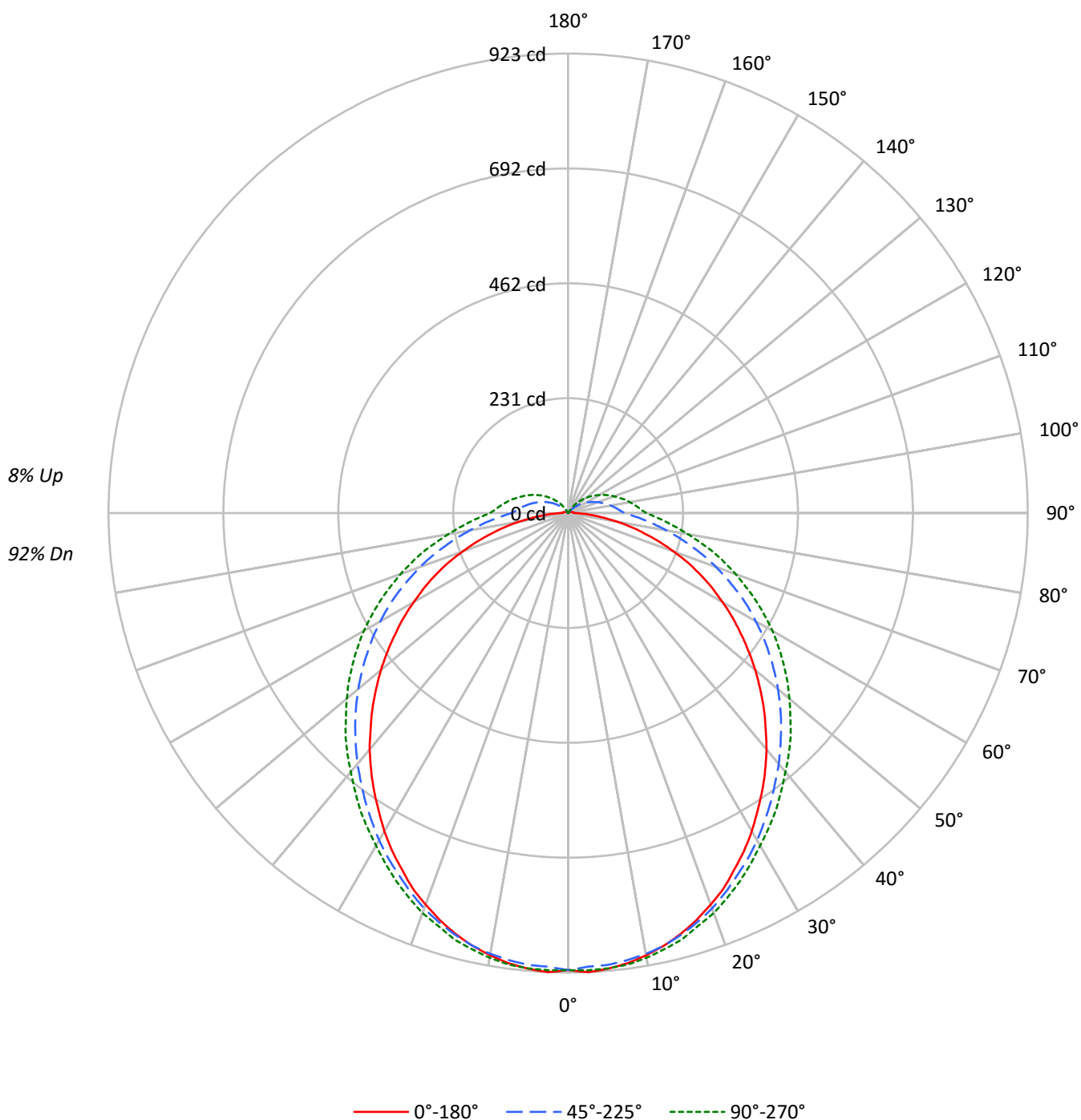
Input Watts (W): 26.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	117	117	117	117	113	113	113	113	106	106	106		100	100	100		94
1	105	100	95	90	102	97	92	88	91	87	84		85	82	80		80
2	95	86	79	72	92	83	77	71	79	73	68		74	69	65		70
3	86	75	67	60	83	73	65	59	69	62	56		65	59	54		61
4	79	66	57	50	76	64	56	49	61	54	48		57	51	46		54
5	72	59	50	43	70	58	49	42	54	47	41		52	45	40		49
6	67	53	44	37	64	52	43	37	49	42	36		47	40	35		44
7	62	48	39	33	60	47	38	32	45	37	32		42	36	31		40
8	58	44	35	29	56	43	35	29	41	33	28		39	32	28		37
9	54	40	32	26	52	39	31	26	37	30	25		36	29	25		34
10	50	37	29	24	49	36	29	24	35	28	23		33	27	23		32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11127	11127	11127
5°	11161	10827	10825
10°	11060	10558	10491
15°	10917	10257	10131
20°	10713	9917	9740
25°	10461	9529	9331
30°	10203	9180	8919
35°	9913	8811	8586
40°	9636	8475	8232
45°	9330	8151	7945
50°	9028	7830	7631
55°	8693	7501	7344
60°	8367	7166	7050
65°	8033	6808	6704
70°	7529	6406	6347
75°	6893	5946	5981
80°	6159	5487	5562
85°	5470	5140	5287

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.1	2.8
10°-20°	248.3	8.0
20°-30°	371.2	12.0
30°-40°	443.2	14.4
40°-50°	463.8	15.0
50°-60°	435.2	14.1
60°-70°	363.5	11.8
70°-80°	259.9	8.4
80°-90°	154.7	5.0
90°-100°	97.2	3.2
100°-110°	71.4	2.3
110°-120°	47.7	1.5
120°-130°	27.2	0.9
130°-140°	12.2	0.4
140°-150°	2.5	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	706.6	22.9
0°-40°	1149.8	37.3
0°-60°	2048.8	66.4
0°-90°	2826.9	91.6
90°-120°	216.3	7.0
90°-150°	258.3	8.4
90°-180°	258.0	8.4
0°-180°	3085.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	918	918	918	918	918	
5°	919	917	911	919	918	87
15°	875	878	877	887	886	246
25°	790	800	803	816	816	364
35°	680	696	709	724	728	425
45°	556	580	605	624	632	429
55°	424	457	493	520	528	380
65°	293	332	376	406	416	290
75°	159	206	256	289	301	170
85°	49	99	152	186	196	50
90°	13	62	113	147	157	9
95°	11	50	99	130	140	9
105°	8	32	75	103	112	8
115°	5	17	53	77	85	5
125°	3	3	32	53	60	3
135°	2	1	12	30	35	2
145°	1	0	0	8	12	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°	918	918	918	918	918
2.5°	923	920	912	920	919
5°	919	917	911	919	918
7.5°	912	912	906	916	915
10°	902	904	899	909	907
12.5°	890	893	890	899	897
15°	875	878	877	887	886
17.5°	857	863	862	871	869
20°	837	843	845	854	855
22.5°	816	822	825	837	836
25°	790	800	803	816	816
27.5°	765	776	782	793	794
30°	738	751	759	771	771
32.5°	708	723	734	747	750
35°	680	696	709	724	728
37.5°	650	668	683	700	703
40°	620	638	658	675	679
42.5°	587	610	631	650	656
45°	556	580	605	624	632
47.5°	523	550	578	599	605
50°	491	519	550	573	580
52.5°	457	487	522	546	555
55°	424	457	493	520	528
57.5°	392	426	465	492	501
60°	358	394	435	463	474
62.5°	326	363	407	435	445
65°	293	332	376	406	416
67.5°	260	301	345	378	386
70°	225	268	316	348	358
72.5°	193	236	286	319	329
75°	159	206	256	289	301
77.5°	130	177	227	262	271
80°	99	148	200	234	244
82.5°	72	122	175	209	219
85°	49	99	152	186	196
87.5°	30	80	131	165	175
90°	13	62	113	147	157
92.5°	12	55	105	138	147
95°	11	50	99	130	140
97.5°	10	46	93	123	133
100°	9	41	87	116	126
102.5°	8	36	81	109	119
105°	8	32	75	103	112
107.5°	7	28	69	96	105
110°	6	24	64	90	98

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	6	20	58	83	92
115°	5	17	53	77	85
117.5°	5	13	47	71	79
120°	4	9	42	65	72
122.5°	4	6	37	59	66
125°	3	3	32	53	60
127.5°	3	2	27	47	54
130°	3	2	22	41	47
132.5°	2	2	17	35	42
135°	2	1	12	30	35
137.5°	2	1	8	24	29
140°	1	1	4	19	24
142.5°	1	0	0	13	18
145°	1	0	0	8	12
147.5°	0	0	0	3	7
150°	0	0	0	0	2
152.5°	0	0	0	0	0
155°	0	0	0	0	0
157.5°	0	0	0	0	0
160°	0	0	0	0	0
162.5°	0	0	0	0	0
165°	0	0	0	0	0
167.5°	0	0	0	0	0
170°	0	0	0	0	0
172.5°	0	0	0	0	0
175°	0	0	0	0	0
177.5°	0	0	0	0	0
180°	0	0	0	0	0

(END OF REPORT)